

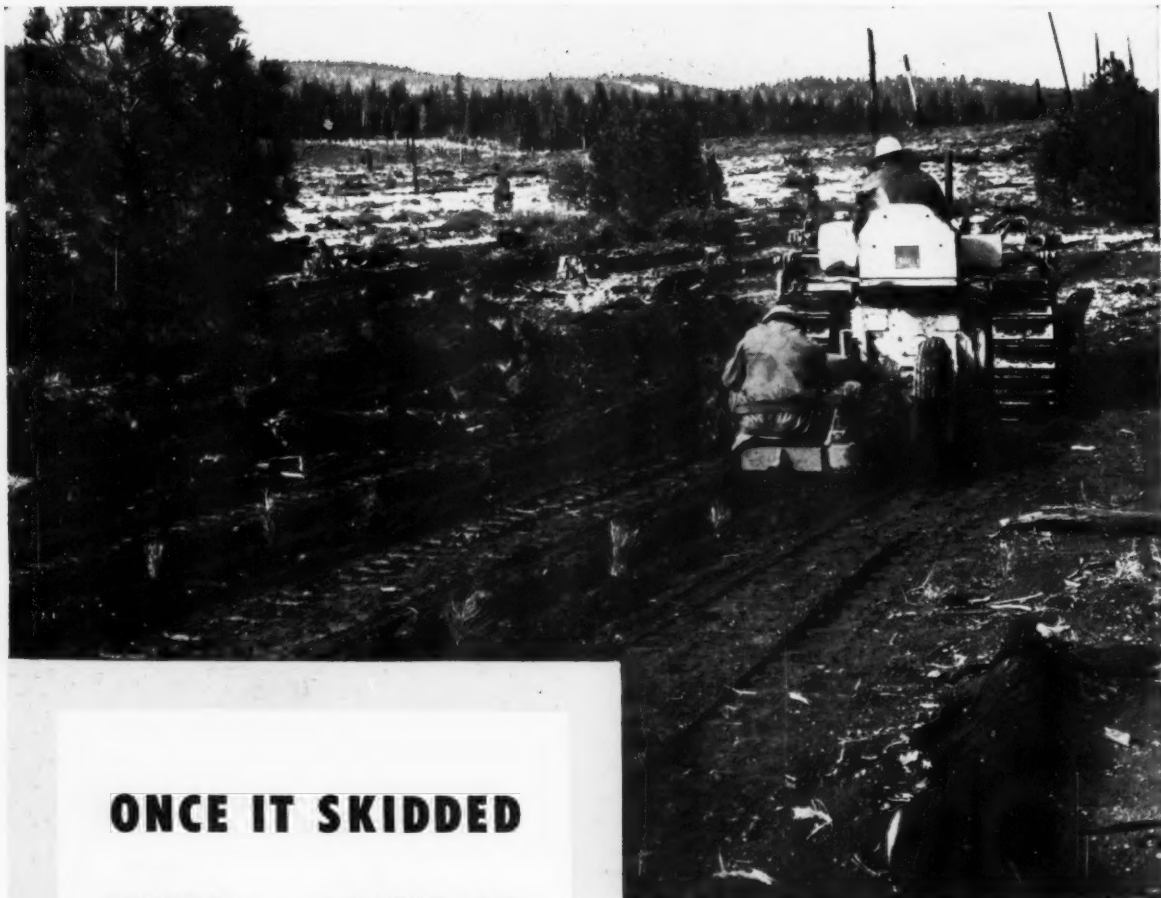
American

FORESTS

MAY 1952

50 CENTS





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PLANTS THEM!**

ON A 3,200-acre experimental operation near Klamath Falls, Oregon, the Weyerhaeuser Timber Company uses a veteran "Caterpillar" D4 Tractor to pull a Lowther tree planter. The 11-year-old D4 is doing the same efficient job now that it did on previous assignments in the woods. "A track-type tractor is essential here," says Forester T. J. Orr, Jr. "Power is needed to move the debris."

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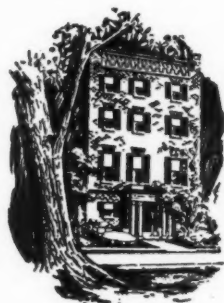
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EARTHMOVING EQUIPMENT**

VOLUME 58
NUMBER 5
MAY, 1952



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The American Forestry Association, publishers of *American Forests*, is a national organization— independent and non-political in character—for the advancement of intelligent management and use of forests and related resources of soil, water, wildlife and outdoor recreation. Its purpose is to create an enlightened public appreciation of these resources and the part they play in the social and economic life of the nation. Created in 1875, it is the oldest national forest conservation organization in America.

American FORESTS

PUBLISHED BY THE AMERICAN FORESTRY ASSOCIATION

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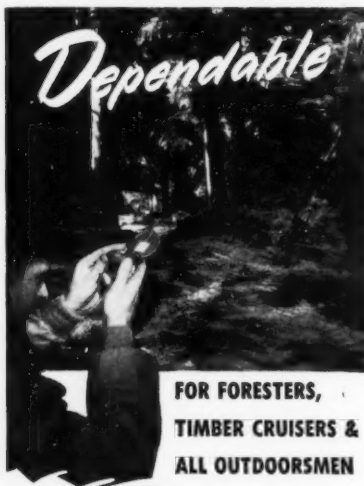
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Cover

When Milton wrote of "the flowery May," his poetic soul might well have been stirred by an image akin to this month's cover scene. The flower-like innocence of a delightfully radiant child, the transient loveliness of dogwood blossoms, softly filtered sunlight—each a poetic inspiration and all symbolizing, as does May, the pinnacle of Spring and the transition to Summer. As Milton created beauty with his sublime poetry, so has Lensman Harold K. Lambert captured it with his camera. We should like to nominate the young lady as queen of "the flowery May." We think Milton would agree.



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American FORESTS Forum

Among Our Authors—A nature lover who has traveled extensively, **Miss Annette H. Richards**, author of *Public Parks or Public Dumps?* (page 8), lives in West Chester, Pennsylvania. Her constructively analytical articles have appeared in various outdoor magazines. Author-Lensman **Robert Branstead**, who wrote *How Much Water Did It Snow?* (page 12), hails from Portland, Oregon, and is an information specialist with the Pacific region, U. S. Soil Conservation Service. A veteran writer, he is familiar with soil, water, range and forest situations in the west.

H. B. Steer, author of *Home Remedy for Wood Rot* (page 17), is an economist for the U. S. Forest Service in Washington, D. C. Another of his articles, the popular *Putting the Dollar Sign on Decay*, appeared in the October 1951 issue. *Do You Want to Take a Walk?* (page 18) is the product of **Dorothy M. Martin**, Washington, D. C., assistant secretary of the Appalachian Trail Conference and former secretary general of the Potomac-Appalachian Trail Club. *Jokers Wild* (page 20) is another contribution from **Harry Botsford** whose byline is familiar to readers of *American Forests* as well as *Colliers*, *Esquire* and other nationally-circulated magazines.

Nell Womack Evans, author of *Pre-Cooking Care Improves the Fare* (page 24), is a past master at presenting the distaff side of the outdoor picture. A frequent contributor, she calls Colorado Springs, Colorado, home.

Looking Ahead—A problem of concern to all conservationists — the threat to forests and land by federal dam building — will be discussed in the June issue by **A. Z. Nelson**, prominent consulting forester from New Ipswich, New Hampshire. Pointing out that benefits derived by some from federal dams often are far outweighed by losses borne by timber growers, workers, sportsmen and recreationists, Mr. Nelson concludes that the U. S. Forest Service should be accorded active participation from the start in planning the building of dams.

If the high cost of vacations is keeping you home this summer, take the advice of **Jules Archer** and *Join the Two-Wheeled Gypsies*. The article tells how the young in heart, regardless of age, can enjoy an economical, healthful holiday on a bicycle.

And then there will be *Lady and the Lake*, a neatly woven piece about how a dyed-in-the-wool fisherman, about to lose his wife's companionship on the outdoor junkets, rekindles the little lady's interest in angling. **R. R. Hogan** is the author.

In *Sweet Acacia*, **Donald Culross Peattie** details the history and attributes of that shrubby little tree so common throughout western Texas. The article is the first of two which will also appear as chapters in another Peattie-authored book scheduled for publication this fall by Houghton Mifflin Company.

Going Abroad!—The U. S. State Department has borrowed five articles from the February and March issues of *American Forests* for distribution in Yugoslavia. The distribution is at the request of Yugoslavia and is part of our nation's information and education program in Tito-land. Articles included are *They Plan by the Century*, *Cold Weather Crop*, *Thirsty Acres*, *A Straight Path Through the Forest* and *The Look-out's Mechanical Eye*.

They Plan by the Century also "made" the *Congressional Record* recently when the entire article was read into the record by Rep. Homer D. Angell of Oregon.

Our Readers Say—From A. G. Randall, assistant professor in the Department of Forestry, University of Maine, comes this enlightening letter regarding our recent series of articles dealing with *Abuses Under the Mining Laws* (January, February and March issues):

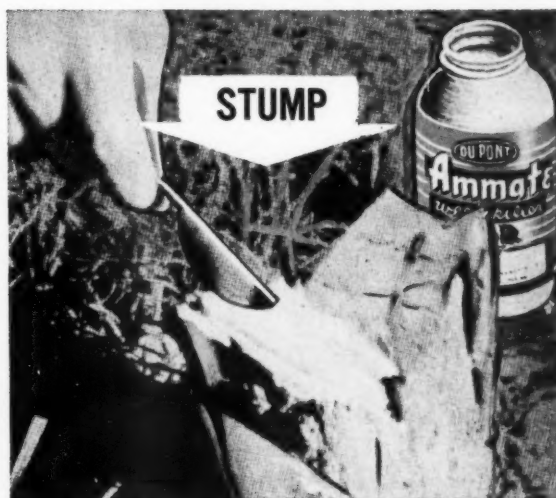
The articles by **Cleveland van Dresser** on mining claims in the national forests were so interesting that I cannot refrain from making one or two comments. I certainly agree that the present situation is not in the interests of the people of the United States, or even, in the long run, of the mining industry. It would perhaps be asking more of this industry than we do of

(Turn to page 53)

4 Ways to Kill Scrub Trees with Du Pont "Ammate"



1 For large trees, hack overlapping cuts into the sapwood around the trunk. Pour in enough "Ammate" solution (4 lbs. to a gallon of water) to wet the cut surface all around the tree.



3 Cut small trees with a V-shaped stump. Put a tablespoonful of "Ammate" crystals in the V. You can also use "Ammate" on larger stumps to prevent sprouting.



2 On tough trees, chop notches every six inches near the ground. Put a tablespoonful of "Ammate" crystals in each notch. This deadens even blackjack oak with little resprouting.



4 On seedling trees or sprouts, spray the green leaves and stems when they are fully leafed out using "Ammate," $\frac{3}{4}$ lb. per gallon of water. Let trees or sprouts stand a year for best kill.

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BETTER THINGS FOR BETTER LIVING... THROUGH CHEMISTRY

WASHINGTON LOOKOUT

By G. H. COLLINGWOOD

Demands for increased economies of administration, greater returns from timber sales, more effective use of research, and wider application of conservation principles characterized recent House action on two appropriation bills.

Interior's \$492,434,763 appropriation bill, H.R. 7176, as passed by the House on March 27, is \$36,836,653 less than is currently being expended. To make this cut \$257,605 was taken from the Bureau of Land Management, leaving it at \$10,750,000, while \$555,555 was taken from the Fish and Wildlife Service which may now get \$12,702,000. The National Park Service was almost unique in that the recommended \$29,827,000 is \$1,578,436 more than the current appropriation.

The Department of Agriculture's \$724,003,699 bill, H.R. 7314, is \$69,320,131 short of the present appropriation. This reduction prompted the Committee on Appropriations to comment that regular appropriations to the Department "have decreased approximately 32 percent since the beginning of World War II." It stood at \$1,061,800,000 in 1940. During this same period, annual budget requirements for the rest of the cabinet status departments of the federal establishment, excluding the Defense Department, have increased from approximately \$1.2 billion to \$5.4 billion, an increase of over 360 percent.

"In making this comparison the Committee does not pass judgment on the need for increases for the other departments. The point is made to indicate that insufficient attention has been given the needs of one of the largest and most important segments of our national economy—agriculture. In 1940, the Department of Agriculture had 13.7 percent of the federal budget, exclusive of military expenditures. In this bill it is less than three percent on a comparable basis."

Attention was also directed to the reduced number of employees since 1940. The amounts recommended in the bill will decrease this figure from 108,251 in 1940 to less than 63,500 in 1953—a reduction of 41.3 percent in 13 years.

"Information presented to the com-

mittee," continued the report, "indicates that our population is currently increasing at the rate of about two and one-half million persons per year. Based on our present standard of living, it is estimated that the additional population in 1975 will require the output from 115 million acres more land than is now available." With this background, "it appears to the Committee . . . that Congress must strengthen the research and soil conservation activities of the Department."

To get action toward this goal, the Committee reminded the Secretary that he has authority to transfer up to seven percent of funds between appropriations in order to meet urgent needs. "The Secretary," declares the report, "should make use of this authority to supplement research funds in this bill wherever there is urgent need to strengthen research in the interest of the over-all welfare of agriculture."

Following this cue with regard to pest control programs, the Committee urged the transfer of funds "to the research activities where such action will result in reduced expenditures for insect control and eradication in the future."

For the Forest Pest Control Act, and for white pine blister rust control, \$3,250,000 and \$3,300,000, respectively, are recommended. Each sum is a reduction from \$4,000,000 approved by the Bureau of the Budget. Included in the forest pest control activities are funds for completion of the spruce budworm project in Oregon and Washington, an increase for the Engelmann spruce bark beetle control project in Colorado, continuation of several other projects, and a start on several new projects in the Northwest. Of special interest is the Committee's conclusion that "no new program should be undertaken until complete cooperation and matching funds have been agreed to by the state and local interests involved."

The appropriation for the Soil Conservation Service was upped by \$1,120,916 to make a total of \$60,445,500. This is the largest increase proposed in the bill, which according to the committee, "will provide

technical assistance to the approximately 150 new conservation districts which will be established during the coming fiscal year and will permit more adequate staffing of those districts now in existence."

Recommendations of \$61,708,000 to the Forest Service represent a cut of \$9,872,050 from the current figure. With \$10,000,000 proposed for Forest Roads and Trails, that item will take \$6,579,435 of the reduction. Actually, however, according to the Committee, "an additional \$6,000,000 will be available for this purpose from national forest receipts."

Costs of constructing smoke jumper facilities near Missoula, Montana are covered by an item of \$700,000 in the Third Supplemental Appropriation bill, H.R. 6947, so elimination of a comparable sum from the Agriculture bill need cause no slowing down with this project.

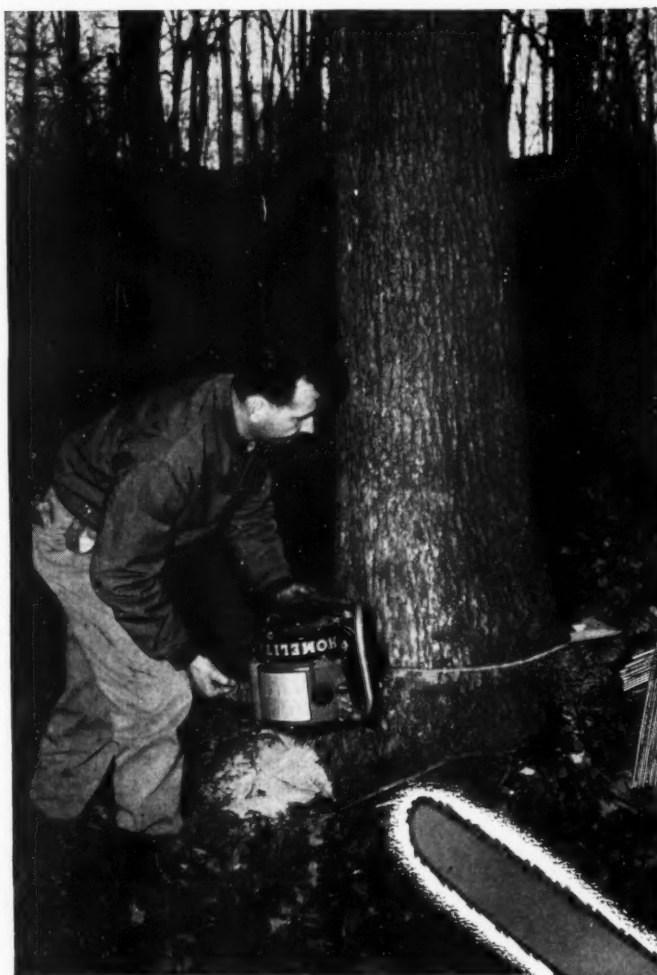
State and private cooperation in forestry is recommended to get \$10,793,000. This is only \$5000 less than is currently available to provide for cooperation with the states in forest fire prevention and suppression, forest planting, and farm forestry extension as authorized by the amended Clarke-McNary Act, and to provide for advice to timberland owners in the application of forest management principles.

Only \$150,000 is recommended to acquire land for national forests. This sum is the final portion of \$500,000 authorized for the Superior National Forest by Public Law 733, approved June 22, 1948.

Provision for additional timber sales from federally owned lands is recommended for the Bureau of Land Management as well as for the Forest Service. Each proposal is described as a means of providing additional timber with which to meet military and defense needs, and to turn more revenue into the Federal Treasury. Breaking the pattern of Forest Service cuts, an additional \$585,975 was recommended for National Forest Protection and Management funds to bring that total to \$29,400,000. This promises to increase timber sales by 40 million board feet in 1953, and would sweeten returns to the treasury by \$6,000,000.

A week earlier the House had recommended \$2,055,000 to the Bureau of Land Management in the Department of the Interior, for O & C timber sales. This includes an increase of \$246,941 described as "for the

(Turn to page 59)



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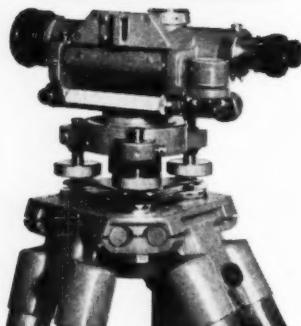
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NEWS IN REVIEW

Wildlife Meeting—Approximately 1000 conservationists, fish and game administrators, biologists and sportsmen from nearly all the states, Canada, Alaska, Mexico and the Virgin Islands attended the 17th North American Wildlife Conference March 17-19 in Miami, Florida.

One of the highlights of the Conference was the presentation of a national natural resources policy at a general session presided over by U.S. Senator James H. Duff of Pennsylvania. The sweeping policy covers the management and restoration of all renewable natural resources, including soils, waters, forests and wildlife. The policy was formulated by a committee consisting of the executive heads of the major national conservation organizations, including The American Forestry Association.

The important role of insects and diseases in limiting forest production was discussed at the meeting by Lyle F. Watts, Forest Service chief.

Metasequoias Planted — Three Metasequoia trees, a species believed for centuries to have been extinct, have been planted by National Capital Parks in Washington, D. C. The species is the ancestor of the famed giant Sequoia trees on the Pacific coast and was not known to exist until 1946 when a Chinese forester reported its discovery in a central province of China.

Safety Awards — Certificates for outstanding safety records have been awarded six Forest Service regions and four forest and range experiment stations by Lyle F. Watts, Forest Service chief.

Special commendation was given the Forest Products Laboratory at Madison, Wisconsin for its record of no injuries in one and a fourth million man hours worked during a 21-month period. Similar commendation was given the Allegheny National Forest in Pennsylvania for going 63 months without a lost-time accident.

Forest Service regions and stations reported a total of 543 lost-time accidents and eight deaths during the calendar year 1951. This is an increase of 35 injuries and six deaths over 1950.

Regions honored were: Northeastern, made up of 14 states from Maine

to Kentucky; Region 2—Colorado, Wyoming, South Dakota, Nebraska, and Kansas; Region 4—Utah, Nevada and southern Idaho; Region 8—the 11 states south of Virginia; Region 9—Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri and North Dakota; and Region 10—Alaska. Forest and range experiment stations cited were the Northeastern, Northwestern, Rocky Mountain and Northern Rocky Mountain.

Pine Seed Study—In addition to their regular sowing this spring, 20 forest tree nurseries in 16 southern and eastern states are sowing a total of 400 special lots of southern pine seed in what may prove to be the most comprehensive study of geographic sources of forest tree seed ever undertaken. Twenty-five lumber and pulp companies, state and federal forestry agencies and schools of forestry cooperated to collect seed for the study.

Arbor Day Fete—Three societies, the Illinois State Historical Society, the Chicago Historical Society and the DuPage County Historical Society will join in staging an observance May 17 of the 80th anniversary of Arbor Day. The fete will be held at the Morton Arboretum, near Lisle, Illinois.

Names in the News—Lawrence W. Rathbun, forester for the Society for the Protection of New Hampshire Forests, awarded the New England Outdoor Writers Association's Parker trophy for outstanding work in conservation; **Stanley S. Locke**, regional forester for the U. S. Soil Conservation Service, elected chairman of the Wisconsin - Upper Michigan section, Society of American Foresters; **Dr. Henry Schmitz**, dean of agriculture and forestry, University of Minnesota, named president of the University of Washington; **Charles Melichar**, assistant chief, division of timber management of the Forest Service, named assistant regional forester in charge of the division of operation for the North-central region; **Matthew E. Dunlap**, research engineer at the Madison, Wisconsin Forest Products Laboratory, retired after more than 35 years on the laboratory staff.

IT WAS A BRIGHT EARLY DECEMBER DAY and Lieutenant Hudner was flying a Korean combat mission alongside another plane piloted by Ensign Jesse Brown. A burst of flak



caught the ensign's plane and he went spinning down, aflame. Lieutenant Hudner then deliberately crash landed near his flame-trapped shipmate. He radioed for help, after

which he fought to keep the fire away from the fatally injured ensign until a rescue helicopter arrived. Today Lieutenant Hudner says:

"Maybe if America had been strong enough to discourage aggression two years ago, my friend, Jesse Brown, might be alive right now. So might thousands more of our Korea dead.

"For it's only too sadly true—today, in our world, weakness invites attack. And *peace is only for the strong.*

"Our present armed forces are strong—and growing stronger. But

don't turn back the clock! Do your part toward *keeping* America's guard up by buying more . . . and more . . . and more United States Defense Bonds *now!* Back us up. And *together* we'll build the strong peace that all Americans desire!"

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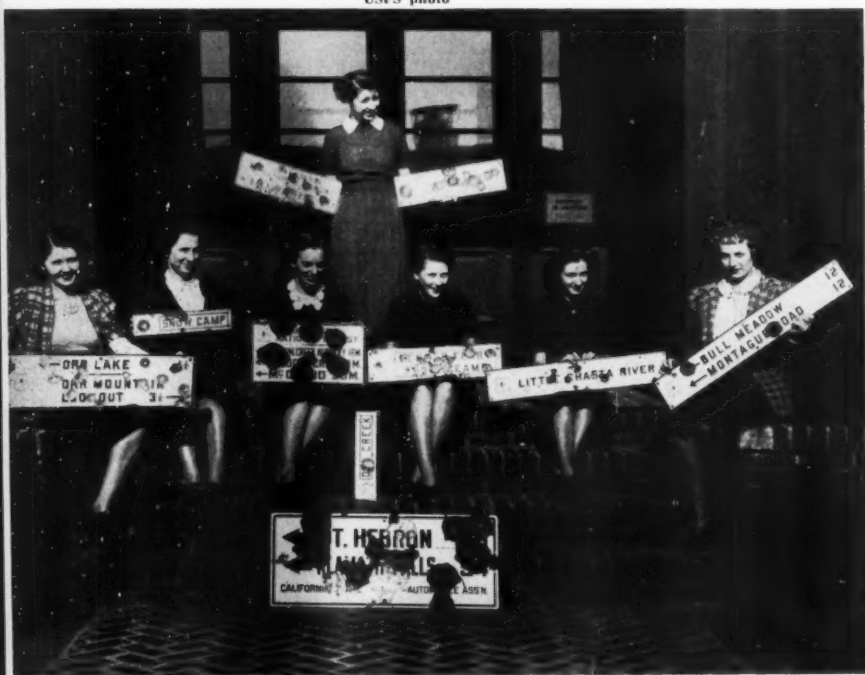


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By ANNETTE H. RICHARDS

Park signs riddled by gun-toting vandals

USFS photo



Public Parks or Public Dumps?

Vandals and strewers of litter are etching a costly blight on your scenic recreation areas. Let's stop it!

IT'S BEEN nearly two years since motorists entering Washington's Mount Rainier National Park through the Nisqually entrance to Paradise Valley or the White River entrance to Yakima Park were handed not only the usual National Park Service brochure but also a trash bag. Rangers expressed the hope that visitors would find the bag a handy receptacle for their inevitable candy wrappers, pop bottles, fruit peelings and other refuse.

The response? Enthusiastic—both in word *and* deed. During the six days this experiment lasted, no trash was picked from the roadside by the cleanup crew. A total of 23,544 visitors passing through the Park used 5868 trash bags in marked preference to littering the roadside and parking areas.

The appearance of the Park improved almost miraculously. In contrast to the 80 or more man hours usually required for cleaning up, only 28 were needed after the six-day trial. In other words, 52 man hours—about seven man days—were saved in one week!

But successful though it was, "operation trash bag" was only an experiment. The unfortunate facts are that National Park and Forest Service personnel and funds are woefully inadequate to cope with the tremendous increase in visitors to these wilderness areas. Under existing conditions it would be impossible for the Mount Rainier experiment to be repeated in all our National Parks and Forests.

Three times as many visitors swarmed to our National Parks in 1950 as in 1945. About 55 percent more visitors thronged into our National Forests for recreation in 1950 than in 1941. And yet appropriations for the Park Service, for example, are only about one-third more than in 1940 despite the decreasing purchasing power of the dollar.

The Park Service, through its interpretive program, is trying to minimize vandalism, destruction and defacement by explaining to visitors the significance of these magnificent areas. This is especially important to those making their first visits, for these outdoor neophytes often do not understand fully the irreplaceable features which make each park unique, nor do they always respect the improvements and facilities provided for their comfort and convenience. However, limited funds and personnel have seriously handicapped growth of this program.

And if the Park Service can't han-

AMERICAN FORESTS

dle the influx of new visitors, what about the Forest Service? Since recreation is only a part of the overall management of the forests, this agency can't undertake even a rudimentary interpretive program. The Forest Service does not and can not provide checking stations staffed with men to greet visitors and instruct them effectively in proper outdoor behavior.

A more realistic appropriation of funds to fulfill the functions for which these areas were created would help alleviate these unfortunate conditions. There would then be adequate facilities for visitor use, sufficient personnel for cleanup work, and enough money to finance an interpretive program that would instill respect for the cliffs, caverns, lakes, forests, historic sites, prehistoric ruins, canyons, craters, geysers, mountains, picnic tables, comfort stations, signs, fences, exhibits, fireplaces and other conveniences.

For that minority which would still deface its own property, a ranger could be on hand to prevent serious damage. Another helpful approach would be to reach people before they get to the parks and forests. John C. Preston, Superintendent of Mount Rainier National Park, suggests that well instructed civic courses in our public schools would be worthwhile.

If people realized that the parks and forests are, in reality, their own property, they would be more reluctant to litter them with beer cans, lunch papers, cigarette wrappings and orange peels or deface them in other ways. They would begin to feel a personal sense of responsibility toward their great national playgrounds and outdoor museums. Pride of ownership and appreciation of the magnificent heritage nature has given to Americans would prevent much of the present abuse of these areas.

But meanwhile, destruction of both improvements and natural features is shocking and unbelievable. Much of it is due to thoughtlessness and ignorance, but a surprising percentage is the result of deliberate vandalism.

Most of us do not grasp the full significance of the seemingly isolated instances of vandalism and carelessness. We see an ugly pile of bottles, cans or papers by the roadside or a deeply initialed directional sign, shrug our shoulders with distaste and go on about our business.

But the unnecessary damage and extra work caused each year by vandalism and carelessness in our National Parks and National Forests costs a huge amount of money. Annual damage to city, county, state and



USFS photo

This picnic table, ripped apart by vandals in the Wasatch National Forest of Utah, typifies desecration of public property

For many years a tourist attraction, this unique sandstone formation in Utah was destroyed by vandals in 1948

National Park Service photo



Cost of fixing this damaged campstove door in Angeles National Forest, California, comes out of taxpayer's pocket

USFS photo





Stealing signs may be a lark to the thief, but it's no joke to the tourist



USFS photos

Garbage-laden canoe left by careless visitor makes eyesore of picnic area

National Parks is estimated at more than six million dollars (\$26 for each man, woman and child)—a sizable sum in view of budgets which were inadequate in the first place.

Let me cite a few examples of damage done to park and forest natural features—much of which cannot be measured in dollars and cents because it is often impossible to restore mutilated phenomena to their former condition.

In California's Sequoia National Park, a large cross-section of a redwood tree that was displayed for many years as a graphic example of these giant trees' longevity was badly disfigured by carved initials.

At the George Washington Birthplace National Monument in Virginia, despite careful supervision, some irresponsible souvenir hunters have helped themselves to knives, forks and spoons during the years. A book disappeared after the ranger, as a special privilege, had personally escorted a United States Senator and his party through the rooms.

At the Castillo de San Marcos National Monument in Florida, energetic young vandals occasionally push a 1500-pound howitzer from its concrete pedestal. Park Service workers must spend considerable time repairing the damage wrought by this Herculean "fun."

So many rocks have been thrown at the Stone Face in the Shawnee

National Forest of Illinois that part of the chin has broken off. If the rock throwing continues, the Stone Face will lose its identity and the recreation area its value.

In the summer of 1948, two-thirds of the oasis in the Joshua Tree National Monument in California was burned out, destroying 44 large palms. In addition, 18 small palms and four cottonwood trees were partially burned. The large palms, only three of which remained unharmed, were at least 100 to 150 years old.

Lava Beds National Monument in California suffered three serious cases of vandalism in 1948. In April, a ranger discovered that dozens of beer bottles had been thrown into the passages of Valentine Cave. Thousands of fragments of broken glass littered the floor. Bottles of mustard had been smashed against side walls with a resultant nauseating sight and stench.

A month later a National Park official reported that the hawk and owl population along the petroglyph escarpment was seriously depleted by irresponsible hunters. Moreover, the unusual petroglyphs suffered severe damage from shotgun and rifle blasts. Unless something drastic is done to stop this wanton destruction, both the hawk and owl population and the petroglyphs will be entirely eliminated from the escarpment.

In June of the same year, serious

depredations were discovered in the Crystal Ice Cave where many of the beautiful ice stalagmites and stalactites, ranging in length from 11 to 14 feet, had been broken off and destroyed.

Unthinking persons who believe that wildflowers, trees and shrubs are unlimited, constantly attack these natural features that add so much to a park or forest. A rough estimate of the topsoil hauled from the Sandia Division of the Cibola National Forest in New Mexico is a truckload a day.

Fishermen raided some of the meadows in this forest for angleworms, digging up the sod and wildflowers.

In one instance, half of a beautiful meadow, an area 100 feet square, had been denuded by persons who sold the worms in Albuquerque. The forest ranger caught and prosecuted the offenders, but the damage was done. The rain washed the unprotected black topsoil down the mountain leaving the meadow scarred with an ugly gash on which new vegetation found difficulty taking hold.

Although this forest is an exception to most National Forests in that 60 percent of its management is devoted to public recreation, there is only one patrolman available to supervise 13 campgrounds and five or six thousand visitors on a typical summer weekend.

During the seven months of heaviest use, flower and shrub picking violations in the Great Smoky Mountains National Park of North Carolina and Tennessee average 20 a day. They range from one flower, branch or shrub to large bouquets and even truckloads. The practice has become so serious that the park has adopted a policy of arresting offenders (though the Park Service usually prefers to explain the purpose of a regulation and thus obtain future cooperation rather than enmity).

Littering of roads and parking areas in this same park costs \$2500 yearly in addition to normal cleanup expense. Someone hauled a truckload of rubbish into Kentucky's Mammoth Cave National Park in 1951 and proceeded to dump it at one of the parking lots.

H. C. Bryant, Superintendent of Grand Canyon National Park in Arizona, believes that road littering is due mostly to thoughtlessness. People strew paper handkerchiefs along the highway in such profusion, he says, that "... the most popular brand might well be nominated as the leading candidate for the national flower. Certainly it adorns every bush along the highways from Mexico to Canada, and from the Atlantic to the Pacific."

At the Yavapai Observation Station on the South Rim of the Grand Canyon, vandals broke the glass in the geological exhibit case in 1947 and stole several specimens. Binoculars focused on special geological formations in the canyon also are frequently stolen. An average of two pairs are stolen each year at a minimum replacement cost of \$100 for each pair.

Damage to signs and exhibits in the Colonial National Historical Park in Yorktown, Virginia, has shown a marked increase in the past few years. In 1948, damage to signs totaled \$21, while in 1950 this cost had jumped to \$227. The pattern in exhibit destruction was similar with a jump from \$81 in 1948 to \$235 in 1950.

Although picnic tables, comfort stations, elevation markers and signs receive their full quota of initials inflicted by pencil, lipstick and knife, there is something about the beautiful white bark of the aspen trees in areas like the Grand Teton National Park in Wyoming which seems to lure the inscribers of noxious "John Henry's." A similar violation of the laws of nature is the persistent peeling of birch tree bark.

In the Hawaii National Park, the breaking of tree fern fronds and the

cutting of young stipes is commonplace. Even if the plant survives the wound there will be no more foliage that year.

The lone Jeffrey Pine atop Sentinel Dome in the Yosemite National Park of California has survived rigorous winter snows and winds on its unprotected promontory, but some visitor drove a spike into its trunk in 1948!

Since the war, jeeps and command cars have descended upon the parks and forests, and obstacles intended to keep all vehicles out of specific areas are no barrier to these powerful machines. They cause great damage to flowers, trees and shrubs. Soil erosion often follows in their wake.

Would-be sharpshooters choose as targets anything from directional signs to fire lookout towers (manned and unmanned). The Gatlinburg Station of the Great Smoky Mountains National Park has been fired at on several occasions.

In sections where colleges and universities are within striking distance, such as Yosemite, Shenandoah in Virginia and some of the New England National Forests, there is frequent loss of signs as souvenirs. They may add atmosphere to a college dormitory room but they also add \$5 to \$60 per sign to the taxpayer's bill.

Vandals and careless visitors wreak their destruction in myriad ways. A

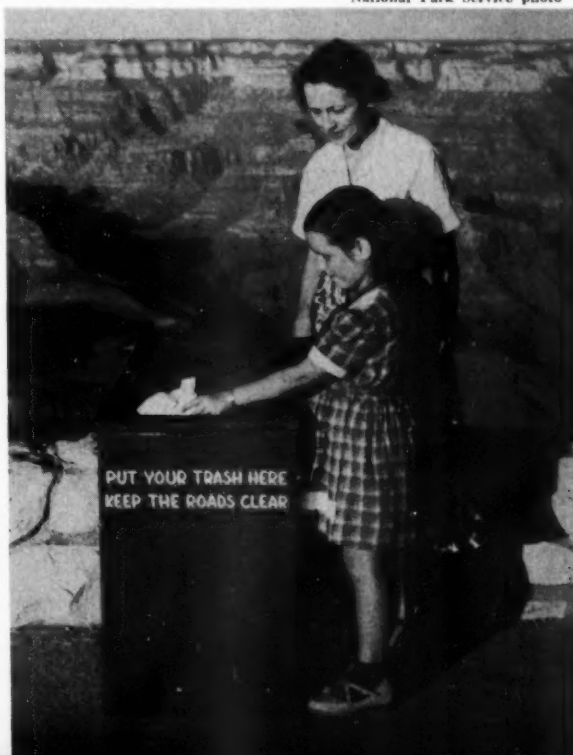
cross section of the almost endless list includes:

Chopping up tables for firewood or rafts; shooting garbage cans, signs and telephone line glass insulators (even during fire season); breaking into buildings and stealing or destroying their contents; removing shingles and chopping down shelter supports for firewood; killing game illegally; chopping down young trees (green trees are no good for firewood); breaking toilet bowls; tampering with the plumbing; contaminating water supplies; breaking concrete or stone benches and tables; throwing matches, cigarettes or cigars from moving automobiles; breaking up fireplaces; and drunken parties with resultant destruction and litter.

Or the despoiler may amuse himself by plugging up shelter chimneys; turning picnic tables upside down on top of a campfire; cleaning fish on tops of tables and leaving the mess; littering grounds, benches and picnic tables with watermelon rinds; shooting up, tearing off or otherwise mutilating corner markers; stealing fireplace grates and picnic tables; shoving tables off their foundations; changing distances on directional signs; moving picnic tables nearer the river so they are carried away by floods; or stealing signs on trails.

All these random instances of vandalism (Turn to page 45)

This mother is teaching her child the kind of outdoor manners we all should practice. Scene is Grand Canyon National Park Service photo







To get average depth of the snow, measurements are taken at carefully-spaced points

How Much Water Did it Snow?

Accurate estimates of summer water supplies, vital to the West, are provided by SCS-coordinated winter surveys of mountain snow

By ROBERT BRANSTEAD

THE day was cold and wintry. Low clouds crowded down on the sage covered hills, obscuring at times the white crowns of the distant peaks. This was eastern Nevada, high desert with higher mountains, a cattle country spotted with

LATEST DATA—Forecasts based on data assembled from more than 1000 April 1 snow surveys reveal that not only was the winter one of deep, heavy snow in most places, but also that weather patterns have shifted to bring promise of the most water in years to the Southwest. The U. S. Soil Conservation Service forecasts generally ample water supplies for almost all parts of the West.

Heavy mountain snow cover is reported from Oregon, Idaho, Nevada, California, Utah, Colorado and parts of New Mexico. Only in Wyoming, southern New Mexico and areas of central and eastern

Montana and western Washington is snow cover normal or slightly below. As in the past four years, there are possibilities of local floods in the Columbia River Basin, on the Rio Grande and on many streams in northern Utah.

The long-time drouth which has plagued the Southwest seems to have partially broken. Runoff for irrigation on Arizona's Salt River system should be the greatest in ten years, but discharge of the Gila River will probably continue below normal. Volume flow of the important Rio Grande, meandering from Colorado through New Mexico and into Texas, will likely exceed anything of the past 11 years.

Flow of the turbulent Colorado for irrigation and power will be much greater than average. The mighty Columbia of the Pacific Northwest will provide along its tributaries a greater than usual supply of water for irrigation, power and navigation. Only on Wyoming's Wind River and in one or two other localized areas of Wyoming and Montana is the snow crop slightly below average, although not enough to warrant much fear

of later water shortages.

Water stored in most western reservoirs is slightly above average, even though several have been or are being lowered to provide space for heavy inflow sure to come.

irrigated fields of hay and pasture. Two men left the Baker ranger station heading their car toward the snow line. It was the first of the month and time to measure the snow on the mountains.

At the same time two other men were working their way on skis to a snow course high in the Sawtooth Range of southern Idaho. They had left the ranger station at Ketchum early to get on the snow while it still had a good crust. Elsewhere, in Oregon, Washington and all other mountain states in the West, men in twos and sometimes threes were disappearing into the white stillness of winter. These men were going on an important but unheralded job—to find

◀ Snow surveying team stops to rest at stream in Idaho's Sawtooth Mountains

what the harvest of water would be for the coming summer.

Although I have done most of my over snow traveling by Sno-Cat during the eight years I have acted as observer on snow survey trips, I cannot agree that this luxury form of travel will to any degree take the place of skis and snowshoes in reaching the 1000 odd snow courses that must be measured each month. The cost of equipment would be prohibi-

of water annually.

Farmers are not the only ones who use water. Idaho has 70,000 workers earning a total of more than 127 million dollars a year who would be looking for jobs if the water were shut off. There are 72 hydroelectric plants in the state which furnish 346,000 kilowatts of electricity.

This is big business, but Idaho is only one of the 17 western states where snow water is of prime impor-



Left, party uses Sno-Cat to reach remote area of Nevada's Ruby Mountains. Right, tracks made by 'Cat on snow 15 feet deep



tive. However, on some courses which are extremely difficult to reach because of distance or terrain, the Sno-Cat, the snow plane and the airplane have all proved cheaper than the cost of sending out several men on an extended trip.

In the West water means the difference between desert and farmland. Electricity is generated in the white turbulence of a roaring stream. Here, mountains and the forested watershed are valued as storage reservoirs of far greater capacity than that of the mightiest dams.

Idaho is an example of one of these western states that cannot prosper without its water — or its forests. Seven-eighths of the lands that produce Idaho's usable water are in the state's 16 national forests.

Great engineering feats have opened more and more arid lands to agriculture and by the extension of irrigation facilities have made it increasingly evident that the forest watershed is a vital partner in this expanding economy. Idaho has a 120 million dollar investment in its irrigation structures. These facilities each year bring 9,400,000 acre feet of water to 52,000 farmers and ranchers, who in turn use the water to grow 190 million dollars worth of food and products each year. Idahoans need 27½ million gallons of water a day for home use. They water their lawns and gardens with 450,000 acre feet

tance. For years we have recognized our forests for the timber they produce, for the grazing they provide and their wildlife and mineral wealth, yet in many cases and increasingly so their most important product is water. A good forest cover will gather a tremendous amount of snow during the months of winter precipitation. Then as the seasons change it will slowly release its precious bur-

den into the streams during the late spring and summer — periods of greatest need.

Snow surveys are a means of measuring and evaluating the water productive capacity of the forest and for anticipating the runoff it will provide. These surveys are made by measuring the amount of water contained in the snow cover. Since much of the watershed lands are in the na-

Snow Surveyor W. T. "Jack" Frost finds depth of 131 inches indicated on tube



tional forests the big job of going out in the snow and taking the actual measurements often falls to the forest ranger, a key figure in this inter-agency job. He is located within a reasonable distance and is trained in snow work.

Appropriate sites called snow courses are permanently established on the watersheds where the survey is made each year. Marked by two or more red and yellow striped poles, a snow course is commonly located in a mountain meadow where the snow does not drift. Here the ranger or the snow surveyor assembles a long hollow aluminum tube from shorter sections he has brought with him. The tube is marked on the outside in inches so that he can easily read the snow depth. He forces this tube into the snow until it reaches the ground beneath. Then the tube is carefully withdrawn to retain its core of snow and weighed on a specially graduated scale.

The core is knocked out and the empty tube is again weighed. This weight when subtracted from the combined weight of tube and core gives an accurate measurement of the inches of water the snow contains. Measurements are taken every few feet along the distance between the red and yellow markers and an average reading can be figured for the entire course. The snow course is measured each month January through April and sometimes May, or even June, if spring is late.

The value of a snow course is determined by the number of years it has been measured. Thus, the snow surveyors consider their work relatively new because few courses were measured before 1915-1920 and most of them have been established since that time.

Snow surveys have an interesting history. Originally, they were developed to answer the age old question, "How much snow is there in the mountains?" Some of the earliest work was done in Nevada where a hydroelectric company on the Truckee River was seeking an estimate of the water supply available from the winter snow pack. The surveyors wallowed around in the snow with heavy iron pipes, melted the snow cores in a tin bucket to find the number of inches of water and eventually came up with some surprisingly accurate figures on water supply forecasts.

The information obtained by these pioneers proved so valuable locally that other areas tried the same thing and today the system is still growing



Morlan Nelson, I., SCS, and Glen Brado, USFS, weigh snow to find water content

Supplies are packed to survey shelters in summer. Note height of snow depth marker



as more and more demands are being made on water resources.

One may ask how you can predict the amount of water available during the summer from these few measurements. The answer is simply a matter of comparison. Actual summer stream flow figures are compared with snow measurements from the previous winter. After a number of years a definite correlation between these two sets of figures begins to appear. Prediction of water supply becomes a matter of comparing records from previous years with the present year's snow measurements. Accuracy can be within five to 15 percent and often better if the records have been kept for a lengthy period. The gathering of continuous and repeated measurements is the key to the job of successful water supply forecasting.

These forecasts have time and again proved of value in preparation for the coming summer activities. Farmers who know in advance of a shortage or surplus of water have been able to limit or extend their plant-



Late Spring snow depth around a ranger station in the central Oregon Cascades

ings accordingly. Multiple purpose dams and hydroelectric plants can husband or dump their water supply in advance of drouth or flood and lessen the danger of disrupted service. The fish and wildlife programs, so dependent on water, can take steps to avert impending crisis.

So it goes on down to the city dweller who sometimes is compelled to regulate his lawn sprinkling and bath taking when the water supply becomes acute. This is what sends the forest ranger, the watermaster, snow surveyor and others who join in the work, up into the mountains to punch holes in the snow with aluminum tubes.

There are many federal, state and private organizations who have a part in this job of collecting snow data. A roster would include most power and water companies, irrigation districts and those government agencies whose responsibilities are concerned with the forests where the surveys are made or who need the information for water use.

The entire program, including the work of assembling the data and evaluating it is coordinated by the U. S. Soil Conservation Service, division of irrigation engineering and water conservation, which is headed by George D. Clyde, Logan, Utah. Each month the field offices of this agency receive by wire and long distance telephone the snow measurements taken in all parts of the West. Here, the figures are quickly interpreted and released to the public by radio and newspaper.

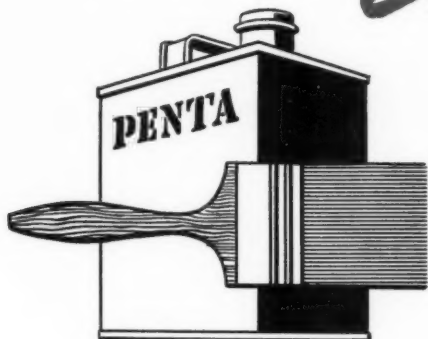
The water supply forecasting made possible by the yearly snow surveys has only been conducted on a coordinated basis for the past 17 years. Now, as the demands for water become greater each year and more money is spent in bringing it to the user, the work of those men who have dared snow storm or sudden avalanche to bring home the figures assumes a new importance.

Survey sights through tube to make certain it's clean as companion takes notes

AMERICAN FORESTS



HOME REMEDY



FOR WOOD ROT

You can't paint away decay, Mr. Home Owner. But you can prevent it with odorless, easy-to-use chemicals applied prior to painting

THIS IS the time of year when the household "handy man" is planning or has already started to build lawn furniture, a trellis, arbor, sand box, play pen or possibly a backyard teeter-totter for the kiddies. Perhaps he is also fixing up some of last year's outdoor furniture that doesn't look as if it will survive another summer—or a rotting porch step.

And whether it's a repair job, an "original creation" or the routine task of putting together some ready-to-assemble porch chairs, economy-minded Mr. Home Owner quite likely will be wondering about two things: first, how did his dilapidated furnishings get that way so fast, and second, is the same short life in store for the newly-built items. After all, he may say to himself, paint should make such articles resistant to decay indefinitely.

This is a false supposition, though a common one. The scientifically-proven facts are that paint *does not* prevent decay in wood exposed to conditions favorable to decay—direct contact with the soil or exposure to the elements. The relationship of paint to wood is like that of lipstick to the fair sex—purely decorative. The same goes for varnish. Paint and varnish are ineffective as protection against decay or insect attacks because they do not contain substances poisonous to fungi or insects.

The only way to protect and assure the maximum life of wood used in conditions favorable to decay is with a preservative chemical poisonous to fungi. And it is generally true that a preservative treatment which

By HENRY B. STEER

will prevent or greatly retard decay will usually offer adequate protection against insect attacks.

Here again, the householder often falls prey to misinformation. When he thinks of wood preservative he thinks of creosote (about 95 percent of the wood treated annually by commercial plants in the United States is treated with creosote or creosote type preservatives) and rules it out for home use because of the lasting odor and the fact that it can't be painted over satisfactorily.

Both indictments against creosote are true, but largely irrelevant, because there are other effective preservatives that leave wood with a clean, paintable surface and no offensive odor.

Among preservatives in this category are zinc chloride, Wolman salts (Tanalith), Celcure and pentachlorophenol. Since the writer has had personal experience with pentachlorophenol only, this discussion is limited to that chemical. The other three, however, may also be effective.

Pentachlorophenol is usually mixed with petroleum and generally in a five percent solution—pentachlorophenol constitutes five percent of the solution by weight. This strength solution, mixed and ready for use, is available at retail stores. (To meet the requirements of paintability, pentachlorophenol solutions should be carefully selected and information on suitable petroleum diluents obtained from the supplier of the preservative.)

Here are the simple rules to be followed before the wood is treated. Use only sound and thoroughly dry

wood. If you are making the article yourself, all cutting, framing, sizing, surfacing, notching and boring should be done before treating. Otherwise, untreated wood will be exposed and subject to infection. If any cutting is done after treatment the exposed surfaces should be re-treated. If the article has been assembled, make sure it is absolutely dry, for the drier it is the more preservative it will absorb and the more effective the treatment.

Apply the preservative to the wood with a paint sprayer, a brush or a hand operated insecticide sprayer. Don't be stingy with the preservative, apply it generously—all the wood will absorb. Since decay is likely to occur more rapidly at points of contact, use special care in covering such areas.

After treatment, let the material stand in a dry, well-ventilated place until thoroughly dry. This will take several days, the length of time depending on a number of things, but particularly the weather and the degree of humidity. Two coats of preservative are better than one, and three than two. After the last coat of preservative has been applied and the material is thoroughly dry, it may be painted in the usual manner.

The cost?—a solution of five percent pentachlorophenol in petroleum costs about \$1.25 in five gallon lots and about \$1.50 in single gallons. One gallon will cover about one half as much surface as will ordinary oil paint, coat for coat.

It's manufactured by Dow and Monsanto chemical companies. The yellow pages of the local telephone directory, under chemicals, will tell you where to get it.

If hiking's your hobby, try the Appalachian Trail. You'll find 2100 miles of variety extending from Maine to Georgia

Do You Want to Take a Walk?

By DOROTHY M. MARTIN

EARL Shaffer was just out of the army — in fine physical condition but nervous and unhappy. He and his buddy had dreamed since childhood of hiking the Appalachian Trail from Maine to Georgia. But his buddy had been killed.

A wise old doctor on examining Earl in 1948 said, "Why don't you hike that trail yourself, son? This indoor job isn't agreeing with you. What you need is to get out and climb those mountains like you planned."

That is how Earl Shaffer happened to leave his home in York, Pennsylvania, for Mt. Oglethorpe, Georgia, the southern end of the trail. Four months and 2100 miles later, Earl Shaffer reached the top of Mt. Katahdin in Maine, the northern terminus of the Appalachian Trail. He had spent 123 nights on the hike, averaged 17 miles a day and had his boots resoled twice. He returned home a new man — confident, happy, and rested.

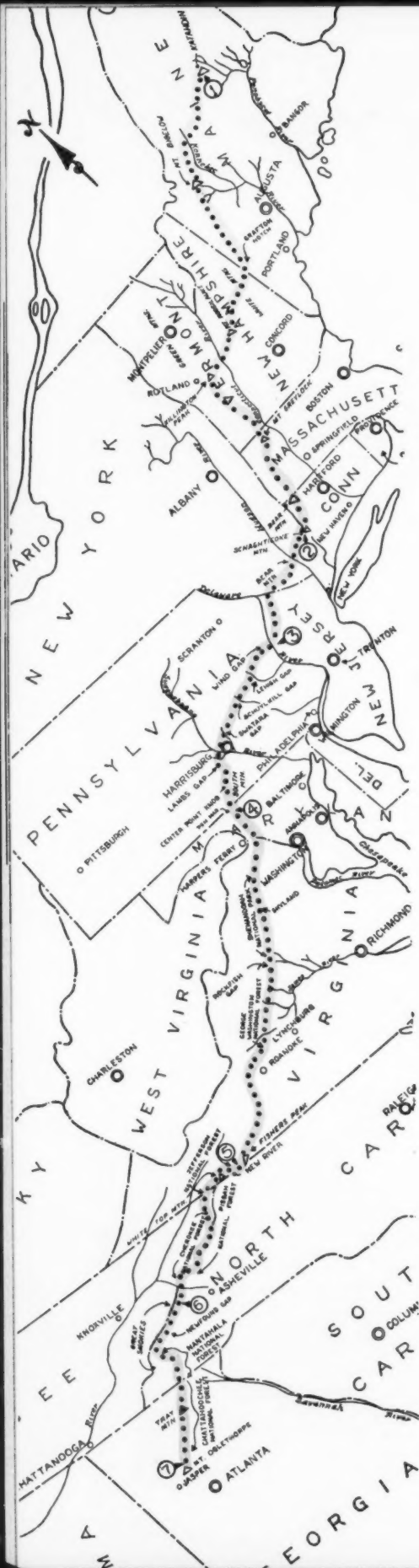
With only road maps to guide him, Shaffer followed the rhododendron season north along the trail. He started out with a tent and full pack, but within a week sent home everything except a change of clothes, some cooking utensils, a knife, ax, blanket, poncho and rainhat.

Not everyone could accomplish that feat. Few would even want to. But to everyone at times comes the urge

APPALACHIAN TRAIL

- 1-2: New England district
- 4-5: New York-New Jersey district
- 3-4: Pennsylvania district
- 4-5: Maryland-Virginia district
- 5-6: Unaka district
- 6-7: Southern district

Myron Avery (with ax), club leader, points out markings as Dr. L. H. Schmeckebier takes notes





Group from the Washington and Baltimore trail clubs atop Mt. Katahdin in Maine

to leave the confusion of civilization and take to the wilderness. For such people the Appalachian Trail stretching across 14 states of the Appalachian Range offers all kinds of outdoor possibilities.

The picknicker can drive within a few hundred feet of the trail at many points. In New Jersey little dirt roads lead to the Kittatinny Range, where the trail winds from High Point to the Delaware Water Gap. The state has erected picnic tables and fireplaces at the more scenic spots and has built parking areas a short distance away.

In Virginia the trail crisscrosses the Skyline Drive in the Shenandoah National Park and the Blue Ridge Parkway, passing large picnic areas. There, also, a person can hike in on the trail and eat where he chooses, so long as he builds campfires only at designated places.

Weekend automobile campers can enjoy the trail. The Potomac Appalachian Trail Club which is celebrating its 25th anniversary this year maintains cabins along the trail which it rents at a nominal fee to members and non-members. Reservations are made in advance at club headquarters in Washington, D. C. The cabins are equipped with bunks, blankets, cooking utensils, lanterns, stoves and an ax.

People who want a more strenuous week end can carry equipment into one of the three-sided shelters which include bunks, fireplaces, spring and latrine. For the convenience of

through hikers, they have been erected a day's hiking distance apart along various sections: from the Kennebec River in Maine through the White Mountains of New Hampshire; on the Long Trail in Vermont; from southern Pennsylvania through the Shenandoah National Park; and from the Pisgah National Forest in North Carolina through the Great Smokies National Park.

The Appalachian Trail Conference, sponsor and coordinator of the trail, aims eventually to have a chain of similar shelters from Maine to Georgia.

The hiker wishing to take an extended trip but travel light can put up at sportsmen's camps along 266 miles of trail in Maine. The camps offer good food, a comfortable bed, and a place to bathe. There is good fishing and hunting in season.



Signs are erected and maintained in all sections of the Appalachian Trail

Where the trail traverses the White Mountain National Forest the Appalachian Mountain Club of Boston maintains a chain of huts spaced a day's hiking distance apart.

The trail follows the rock-piled Presidential Range — Madison, Adams, Sam Adams, and Washington, from which on a clear day the hiker can see Portland Harbor, 90 miles distant as the crow flies. Lakes of the Clouds hut, just off the summit, is a popular center for lone hikers and groups of boys and girls from nearby camps.

No huts or camps break the wilderness of the southern end of the trail. There the individual hikes until he is tired, throws his sleeping bag on the ground beneath the stars if he can't reach a shelter and cooks his own meals. Such travel is only for

(Turn to page 47)

Getting across a fast-running mountain stream sometimes calls for cooperation





Only thing worse than one "card" on a camping trip is a pair of practical pranksters. Never more pleasant than poisonivy, these self-styled clowns sometimes are downright dangerous. So if you're planning an outdoor junket, deal the joker out.

JOKERS WILD

NORMALLY I'm a gentle soul. Small children and stray dogs instinctively like me. I avoid stepping on bugs, and once I nearly wrecked a car to keep from running down a careless chipmunk. I am not given to political arguments. I am the guy who gets pushed around in the subway and who doesn't fuss about it.

But, I hanker to perform a great public service. I would like to take a few chosen camp humorists to the top of a high, windy hill, where I would neatly and painfully dispose of them. This would be retributive justice to those zany individuals who apparently go through life nursing a suppressed desire to perpetuate practical jokes, but who instantly discard their inhibitions when they are in camp.

Nothing spoils an otherwise pleasant hunting or fishing trip more than to have in your midst a self-styled jester with a misplaced and unbalanced sense of humor. In the course of many years I have seen such nuisances play alleged practical jokes that bordered on the sadistic, actually causing severe discomfort to the victims.

One is a character I'll call Newton. That isn't his real name, but it's near enough. At home, he was a trust officer in a large bank and on the surface was quiet and serious. I came to know him rather well when we were

By **HARRY BOTSFORD**

both engaged in a common civic endeavor. I came to like him. I even invited him to join four of us on our annual hunting trip in the Ole Bull country of Pennsylvania. On the way to camp Newton was congenial and companionable. Little did we dream that beneath his serious mien there lurked the twisted mind of a cruel jester.

The first day started out auspiciously. Every one of us, with the exception of Newton, returned to camp with a fair bag of grouse. Harlan, my attorney friend, had returned with three prime birds and with a grin on his tired face. Harlan needed this rest. He had just concluded successfully a long and grueling case where the odds had been against him. It was refreshing to an old friend to know that he could still lead a quattering grouse rocketing through the pines and down him.

Newton was somewhat preoccupied that night, so we tried to cheer him up with predictions of better luck the next day. But when we were ready for bed, he still sat in front of the fire. "I think I'll reload some of my shells," he said. "I want some No. 7 chilled. I seemed to be away off today. Maybe a change of load will bring me better luck."

He was still working when I went to sleep, humming softly to himself.

By the next night Newton had bagged a pair of grouse. The rest of us confessed to a run of bad luck. I had scored two clean misses on straight-away shots in fairly open cover, usually my best shot. Harlan was irritable and the lines were again deeply etched on his face. "I had four simple chances today," he complained. "Even a poor shot should have bagged at least a brace of the birds. I seem to be losing my touch."

"Are you using No. 7 chilled?" Newton asked politely. "I found them to be ideal. I think I will reload all of my shells tonight."

I paired off the next morning with Harlan. He was morose, nervous, had scarcely touched his breakfast. We elected to hunt Green Bottom, usually a very productive cover. Our two setters ranged beautifully, covered the ground leisurely but very thoroughly. Old Ellen came to a halt close to a clump of ground pines on the bank of the creek. Major froze perfectly 50 feet away.

I nodded to Harlan to take the flush. I desperately wanted him to knock down the first bird, to regain his faltering confidence. He walked in, gun at the alert. The bird rose, headed straight up the creek, an easy shot. Harlan's gun swung up gracefully, followed the bird. The right barrel cracked and the bird never wavered. No luck with the second barrel. I heard him swear softly.

Just then, a cock that had been lying close to the edge of the pines, roared into the air on my left. It wasn't a difficult shot but I managed to miss him cleanly with both barrels. Old Ellen looked back over her shoulder, and I swear there was almost a sneer on her handsome and intelligent face.

It was a performance that was repeated four times before lunch. We met the others at the spring on the old Bugbee farm. Harlan was acutely and obviously unhappy. He said he wasn't hungry. It was no consolation to find that Doc and Pete had experienced luck comparable to ours. Newton, however, was very cheerful. He had two birds and was boastful in a somewhat obnoxious way.

Suddenly, I laid down my sandwich and picked up my gun. I felt the dawning of a sudden suspicion.

"See that old hornet nest on that apple tree? I want to see if I can hit something that doesn't move!" I took careful aim and fired. We examined the nest, which was as large as a man's head. It was intact. Pete took a shot at it. Nothing happened. Newton was getting visibly nervous. Doc sensed what was happening, fired both barrels. So did Harlan. I'm sure the dogs thought we were crazy.

"Try your luck, Newton!" I invited. My voice was not entirely gentle. He grinned sickly, pulled up his gun and fired, missing the target. Harlan reached over and grabbed the gun. He flipped it up in a smooth, easy motion, aimed and pulled the trigger. The nest disintegrated.

We stood silent. Four of us were damned good and mad. We now knew what had happened when Newton had allegedly reloaded his shells. What

he had done was to remove the shot from ours. He didn't deny it.

"Aw heck, can't you fellows take a joke?" he grinned. "I was going to tell you tomorrow. It was just a little joke, that's all."

Harlan finally spoke for all of us. "The keys are in my car, Newton," he said. "You have my permission to drive it to Coundersport. There is a train out at three. Leave the keys at the station. If you don't accept this invitation, I give you my word that I'll personally knock the stuffing out of you when I return to camp. If I can't do it, these three other gentlemen will see that it is done. And, before you leave, empty your gun and put your shells on the ground—we can use them this afternoon."

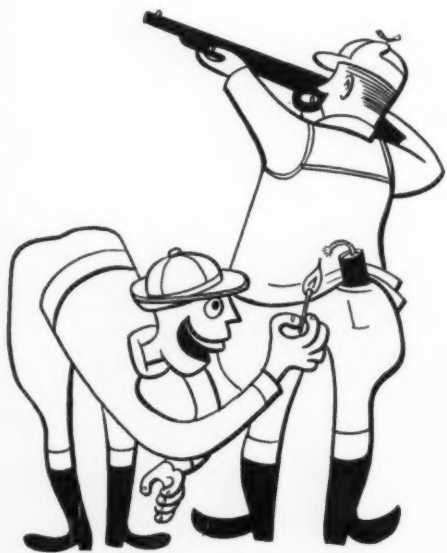
Newton's grin faded. He looked appealingly at me, but my face was frozen. I voted solidly with Harlan.

"Suddenly he dropped his rod. . . Hidden in the creel was a half-grown and unhappy woodchuck, who promptly bit the hand that dropped the crappie."



We had fair luck that afternoon. Harlan bagged a brace of birds, and one was a tricky shot, but his timing was perfect. He was again in high good humor. Newton was gone when we returned, for which I was privately grateful. No one blamed me for what had happened.

But, from now on, I'm mighty particular about whom I invite on a camping trip. I wish I could write the sort of epilogue that fiction would call for: that Newton absconded with the funds of the bank and was prosecuted by Harlan. Nothing like that happened. He's still engaged in civic affairs, he's a pillar of virtue in his daily life, a serious man who seemingly never thinks of playing a practical joke on the fellow members of the Rotary Club.



I can recall many instances that prove buffonery has no place in camp. Two years ago, a good friend of mine nearly lost his life because of a so-called practical joke. He survived, but there's a \$50 fly rod and a lot of expensive equipment at the bottom of Sugar Lake. It had taken my friend years to acquire his fishing kit, for he is a man of small income.

He was fishing with a man he had known for many years, a gent with a reputation as a practical joker. The joker had been a member of this particular club for two years, and while his pranks had been offensive and annoying, they had never before reached the lethal stage.

The two men had gone out just at

sundown to try for crappie bass, using flies. This expedition had been the prankster's idea, and he had carefully and stealthily set the stage. He carried his own big creel, carefully set it down at the feet of my friend. In mid-lake, there was a weed bed, usually a fine lurking place for some out-sized crappie, husky chaps that will give you fine sport with a feather-weight fly rod.

On the second cast, my friend tied into a large crappie that was both indignant and scrappy. He netted him and the joker said, "Drop him in the creel." The slit wasn't large enough, so my friend flipped up the top and started to drop in the fish, still keeping his eyes on the weed patch, watching for another rise. Suddenly he dropped his rod, leaped to his feet with a startled scream, upsetting the boat in deep water.

Hidden in the creel had been a half-grown and unhappy woodchuck, who had promptly bitten the hand that dropped the crappie. My friend couldn't swim. He was nearly dead when we dragged him from the water. His precious rod and equipment had vanished beyond recovery. The prankster was sober and repentant, frightened out of his wits, such as they were.

That night, the members of the club held a kangaroo court and meted out some well deserved justice. The clown was told to recompense his victim for the loss of his equipment. Immediately, too. He was also sternly informed that he would be expelled from the club if he was ever caught playing any kind of a joke, no matter how trivial. From that time on, this man was a better citizen, a more companionable fellow camper.

What devil of perversity possesses some hunters and anglers is beyond me; their jokes always seem to be wholly senseless, an offense against the friendship that is the basis of pleasurable camping.

I was once a member of a camping party in Canada. One of the party was a brash and unpleasant brat whose idea of a side-splitting joke was substituting salt for sugar. He happened to be the nephew of one of the members of the club, so we dismissed the appealing idea of violence. After all, he was scheduled to leave on Thursday. I was to drive him the 15 miles to the little platform beside the twin streaks of rust over which ran two trains a day. One left at three in the afternoon and the other at three in the morning.

A favorite outrage of this young

man was setting the camp alarm clock an hour ahead. He would wait until we were nearly dressed and then would snicker as he suggested that we look at our watches for the correct time. I have known of better and less abrasive jokes. So had the others. We decided to give him a dose of his own medicine.

The night before he was scheduled to leave we set back our watches and the alarm clock a full hour. The young man noticed that his watch didn't jibe with the clock, asked several of us for the correct time. He adjusted his watch to match ours. When we left the camp, his afternoon train had already gone. I deposited him on the lonely platform, along with his luggage and gear.

"It's nearly three, so I guess I'll get back," I said. "Want to be in time to catch the evening rise on Warrior Creek?"

He waved an airy and impudent farewell.

The night was warm and there was thunder in the West. It was going to rain. We thought of the prankster waiting for the train that would not arrive until three in the morning. We were very happy.

Fighting fire with fire, however, usually results in a general three-alarm conflagration, a major disaster. The only thing more catastrophic than one practical joker is to discover you have two in the same group. In the instance I recall, however, they were pitted against each other. We uneasily weighed the nature of the calamity that might overtake us if they declared a truce and turned their undoubted talents against the rest of us.

The final prank was the payoff. It nearly resulted in one of the jokers losing his job, which was a very good one. He was a good and a lucky angler. He had taken the largest of his trout to the nearest dairy and had them quick-frozen until the day we broke camp. All told, there were a dozen very handsome trout, averaging better than two pounds each.

His opponent took advantage of a ready-made situation. He secretly drove to the nearest fish market and bought the requisite number and size of mackerel, wrapped them precisely as the trout. He had no difficulty in bribing the dairy people to make the substitution. He paid them to ship the displaced trout to the real owner three days after we left.

When we broke camp, the first jokesmith collected what he thought

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MANAGING YOUR WOODLAND



... In New York State

Cooperation Does It

By E. W. LITTLEFIELD

TYPICAL of the letters received almost every week at the central office of the New York Conservation Department, or its 14 district offices, is:

"I have recently purchased a 120-acre hill farm, about 60 acres of which is in woodland. I do not expect to do much farming here, but am anxious to carry out proper conservation measures such as I have seen recommended in government bulletins, and would also like to make a little money out of the woodlot if I can do so without destroying its value for myself and those who may come after me. I understand you have a service whereby you will send someone to advise people about tree planting, cutting timber, etc., and would appreciate any information you can give me."

Sometimes we get another type of letter, brief and to the point, often written on a postal card: "I have some timber I want to cut. Please send one of your men to tell me how much I have and what I can sell it for."

The first move in taking care of either request is a good deal the same. We acknowledge the letter, enclose a leaflet telling about our Forest Practice Act, and suggest that the individual get in touch with the appropriate district forester, telling him where the place is and when he can be there to meet him. We never give the second type of letter the "brush off" just because the signer appears to want nothing more than a timber cruise. A desire to have his timber

estimated is often the first step toward the owner's becoming interested in forest management.

Only by a personal contact is it possible to sift out these cases and find out whether we should recommend the services of a consulting forester (we wish there were more of them), or whether we have here a po-

tential cooperator. A "cooperator" in our language, is an owner of forest or woodland who will agree to comply with certain forest practice standards in return for technical services provided by law, which include timber marking, marketing assistance, giving advice on reforestation (together with trees to do the job), and

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Woodland in Cattaraugus County, New York, shows hardwoods at their best

Fishin' Tips

By NELL WOMACK EVANS



Pre-Cooking Care

HAVE YOU ever come home to what you fondly hoped would be a delicious meal of fried fish only to find that your loving, though-ignorant-of-fish-cooking, wife had "deodorized" them with a 15-minute sojourn in the pressure cooker?

If so, she no doubt hears about "the fish mush meal" every time you want to do a little kidding of that gal in your life! But perhaps she wouldn't have found the fish so smelly and on their way to deterioration if the fisherman had cared for his catch correctly.

Fish do have an odor all their own, but part of the rank smell attaches itself to fish because the fisherman fails to give this part of our natural resources proper treatment.

Fish are highly recommended as a regular part of our diet and when we can have the additional fun of catching them, they deserve proper care before they reach the kitchen. If the following tricks are practiced, the most essential ingredient of good sportsmanship — proper conservation of the "kill"—will have been observed.



Here are some pointers on how to make sure your catch reaches the chef with its full flavor preserved. Also some taste-tested recipes

Improves the Fare

Kill your fish immediately after it is caught. Draw and remove the gills. With your thumbnail, remove the kidney, which lies along the spine at the back of the visceral cavity.

Don't wash your fish. If the fish is to be held for several hours, wipe it dry with a cloth, paper or dry grass. The bacteria which cause spoilage develop more rapidly on a moist surface.

Dry grass is very suitable for packing in the creel, allowing the air to circulate freely around the fish, keeping them dry. This dry condition is most desirable, especially with trout, which deteriorate rapidly. The deterioration is retarded in the mountain country, but your catch will decompose rapidly in the more humid atmosphere of the low country. High or low, your fish will arrive home in a better condition if you do not wash them.

Don't put your fish in either fresh or salt water. This will only make them water-soaked and less savory. Allowing fish to remain in the sun also reduces the natural flavor.

Don't hang your live catch on a string or stick for a long period of time, thinking to enhance the flavor by keeping the fish alive longer. This practice causes nervousness in the fish, which in turn causes secretions from the endocrine glands to pass into the blood stream of the fish, impairing the flavor.

If you find this hard to believe, remember the chicken that you had to run round and round before you killed it. Didn't taste so super now, did it? A practice of this kind only results in an inferior dish at the table.

Use ice if it is available, but don't put the fish in a box that excludes air.

If these practices are observed, you will bring the best to your table. The



* DRY WELL

protein content of fish builds and repairs your body tissues; the minerals are a good source of calcium and phosphorus; the vitamins A and D are important to health and growth; and the fat of fish is easily digested.

Now all that remains is to cook that catch right, and here's how:

Deep Fat Fried Fish
Fish *milk*
Salt and pepper *eggs*
Dry bread crumbs

Dip fish in a mixture of beaten eggs, milk, salt and pepper. Roll fish in dry bread crumbs. Fry in deep fat, heated to 375 degrees F., for three or four minutes or until brown. Drain on absorbent paper. Garnish with lemon and parsley and serve immediately.

Pan Fried Fish
Fish
Salt and pepper
Cornmeal

Salt and pepper well-cleaned fish. Roll fish in cornmeal and drop into hot fat. Fry quickly. If the fish are small, frying until the bones are rather brittle is an excellent way to minimize the danger of bones. Good, too.

Baked Fish in Tomato Sauce
Fish for each person to be served
Butter or other fat
About one-half cup each of
chopped onions, celery, green
peppers
1 cup canned tomatoes
Flour
Salt and pepper *Whole cloves*
Bay leaves *Ceyenne pepper*

Place fish in well greased baking pan. Melt the fat, and add onions, celery and peppers and saute until slightly brown.

In separate pan, blend the flour, tomatoes and seasonings and cook until thick, stirring constantly. Remove bay leaves and cloves. Pour sauce over fish in the baking pan, and bake 30 minutes in moderate oven, 350 degrees F.

Another gastronomic treat is smoked fish. Trout is especially delicious smoked in a trench below ground, with a fire at one end made of green leaves and limbs.

Unless you have plenty of time to devote to the cultivation of a taste for this extra-special treat, smoked trout probably won't appear on your menu too often. But it is worth remembering for that camping trip, and the smell of the smoke as it gives the fish that just-right taste will make any trip a long remembered one.

Fried, baked or smoked, your fish meal will be complete with corn meal muffins, black coffee, sour pickles and that good tired feeling that follows the fishing trip! Just forget the pressure cooker! And remember fish is food—game food—and deserves the care afforded other game meat.

Do We Need Federal F

(These papers were presented at a Yale University panel in December 1951.)

YES . . . Edward C. Crafts, assistant chief, U. S. Forest Service

OVER the years forest regulation has been a controversial issue. During the past decade, however, the area of disagreement has narrowed. The issue today largely centers around whether and to what extent the federal government should participate in public regulatory measures in forestry rather than the former issue of whether any public regulation of forestry on private lands is desirable.

One of the greatest barriers to forest regulation, both in the past and today, is that much opposition is based on philosophical, psychological, and emotional grounds rather than on objective reasoning. I think proponents of regulation have rested their case largely on the forest situation in this country, and have given insufficient attention to philosophical barriers.

However it may be sugar-coated, regulation is an impairment of individual freedom. Our nation was conceived in revolution against restrictions on individual liberties, and no one—Americans least of all—likes to be told what to do. That is simply human nature.

There was a great deal of individual liberty in the United States as our young nation progressed through its initial period of settlement and development. Like all nations, however, as population pressures grow, as technological developments bring people in closer proximity to each other, and as the nation's commerce impinges on its natural resources, there must be more and more restrictions on individual actions in the interest of society at large.

Anarchy offers the maximum of individual freedom. Acceptance of government—any form of government—as a necessary institution of mankind is acceptance of the need for regulation of the individual for the benefit of society. Thereafter, matters of regulation relate only to degree. For example, the phrase “free enterprise” actually represents a considerable degree of regulation, although it is often cited as epitomizing just the opposite.

When facts are against them or logic fails, opponents of forest regulation often resort to ridicule, or inaccurate and derogatory use of unpopular terms such as “totalitarian,” “socialistic,” and “anti-

democratic” in an effort to discredit the proposal. This is a customary maneuver in debate, and is evidence of emotional resistance.

When used correctly, such terms are not descriptive of the proposals for forest regulation. “Totalitarian” applies to a highly centralized government controlled by one political party with no representation of other parties permitted. Forest regulation does not affect in any way our democratic government and two-party system in which the people retain supreme power through periodically renewed representation and delegated authority.

“Socialism” signifies government ownership and management of essential means for production and distribution of goods. Forest land and timber qualify as essential; but regulation of private forestry aims to keep private timber land sufficiently productive so government ownership is not necessary. Thus, forest regulation does not promote the socialization of private timber land but encourages the capitalistic system in which ownership of land and natural wealth is entrusted to individuals.

In 1944 *Fortune Magazine*, which is a spokesman not for government, not for labor, but for business management—the group that traditionally opposes government controls most vigorously—stated:

“Enterprise must make up its mind that it must conform to a planned program which takes into account the proper use of our resources. . . . In principle Americans have a neat choice here between the spiritual values of fewer regulations and the material values of more potatoes. . . . Above a certain level the national output we can have is a tight function of the control we are willing to take. . . . The purpose of government regulation is to keep the behavior of one individual from damaging too severely the welfare of other individuals. . . . The notion that there is a complete and universal coordination of individual and social aims . . . is more often asserted than seriously argued. The fact is that the individual, left to his own devices, will in some circumstances do damage to his fellow citizens. The government must intervene on behalf of the community as a whole. . . .”

I give you this rather long quotation because it testifies to the change in progressive thinking within the last decade among one of the most conservative groups in our country.

On the legal side constitutionality of forest regu-

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Forest Regulation?

NO . . . H. H. Chapman, professor emeritus, Yale School of Forestry

WHEN we talk about forest regulation it usually boils down to one of two kinds of control.

First there is economic control. This plan envisions dictatorial power over the commercial or economic side of forest production. It would assume power to tell an owner how much timber he can cut annually as well as what kinds. Armed with this authority, the government, whether national or state, is in effect assuming the power of ownership with none of its responsibilities. Whether his private enterprise lives or perishes is no longer within the owner's control to determine. An all-powerful government decides that question.

Second there is forestry or silvicultural control. In itself this phase of regulation is entirely independent of the time, the place, and the volume of cutting, which are the three essential elements of economic control. It is concerned solely with measures aimed at keeping the forest land in production, and preventing its deterioration or destruction by owners and operators whose main interest is immediate economic necessity or a desire for early maximum profits.

We can well conclude that overwhelming sentiment is opposed to economic controls, that is, we hope this is true. It is the type of regulatory measures needed to insure good forests that need our attention.

What kind of timber cutting measures we will use is the next element of our complicated problem of attaining the most constructive and healthful balance between the police power and the freedom of individual initiative. To be sound, they must be both effective and economically possible. Any spendthrift, or government, armed with the latest scientific knowledge of forest ecology, could with unlimited means effect in time an approach to full production of timber regardless of difficulties.

But unless subsidized to a backbreaking point—reflected in taxes, borrowing, and inflation—measures in forestry and all other fields combined must be confined to what can be afforded now and what promise to return an increased income at least equal to costs and benefits, public and private.

But granting this possibility of common sense application of the means to the end, do we possess the keys to unlock the mysteries of forest succession and reproduction so that we can guide the private timberland owner in undertaking practical forestry, much less force him to do things our way?

Forestry is still a new profession in this country. In Europe, with immensely simpler problems, a century more of experience, and an attitude of complete trust in technological direction of forest production, many fundamental problems of growing tree crops are still unsettled. There is no reason whatever for assuming that our own foresters are less able, or less capable for finding out the best and most practical measures for safeguarding our forest heritage by renewing it. But if the relative difficulties and complexity of forestry problems on the two continents are compared, we will have to devote at least as much time to ours as the Europeans before we are reasonably sure of most of the answers.

Let us assume for instance that either federal or state authority had been set up 50 to 75 years ago in the longleaf pine forests of the southern states for the purpose of preventing the wholesale forest destruction by private operators. The first edict under this assumed regulation would have been absolute elimination of fire in the forest.

The net result would have been complete elimination of all future longleaf pine reproduction. As a matter of fact, the lumbering of this vast resource was only one agency leading to the destruction of the species. Another was hog grazing. But the determining cause was and still is complete *elimination* of fire. Since foresters by and large, including the U. S. Forest Service, now recognize that fire is essential, and are governed accordingly in their practice, it is sufficient to say that it took 40 years to get these ecological principles accepted.

Meanwhile the total loss to the South from failure to reproduce this species by leaving seed trees and by the controlled use of fire, has, on the basis of demonstrated yields of second growth, for which I can personally vouch from my own experiments, amounted to well over five billion dollars in stump-

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YOUR SHADE TREES



Plant Galls or *Bug Houses*

By R. R. FENSKA

QUITE frequently we receive a letter somewhat as follows: "Under separate cover I am sending you samples of foliage with "bud-like" growths on the leaves which make my tree look as if it has some kind of blight. Please let me know what I can do to save my tree."

The "bud-like" growths, of course, are leaf galls caused by insects whose feeding habits irritate and stimulate adjacent plant tissues into developing abnormal vegetable growths on host plants. Such galls provide both food and shelter for insects, which may be a midge, mite, plant louse, wasp, or other insect. In the United States the gall midges are the most common, although gall wasps are prevalent too.

These insects attack both deciduous and evergreen trees, as well as shrubs, and may be found on the leaves, flowers, fruits, seeds, stems, roots, or even the main trunk of the trees. These abnormal growths vary from a simple gall, leaf-roll, or pouch gall, to that of an artistic and complex structure which seems unrelated to the tissues from which it has developed.

For example, the striking yellow, red margined leaf spot of soft maple is the product of a gall midge. Other types of galls are bullet galls, bud galls, blister galls, oak apples, flower galls, stem galls, rosette galls (on buds), subcortical galls (under the bark) and root galls. In fact, there are over 2000 varieties of insect galls in the U. S. alone.

To the average home owner the best known of the gall insects are the spruce gall aphids (plant lice) which produce the familiar pineapple-shaped galls on the twigs of Norway

Mr. Fenska, conductor of this series, is author of the well-known *Tree Experts Manual*, now being revised for third printing.

and Colorado blue spruce trees. Most of the gall insects produce a more or less definite type of gall which serves as a ready means of identification of the insect.

Some of these galls produce a "honeydew," a distinctive sticky fluid which in the early Summer attracts hosts of honey-gathering insects, such as bees, ants, wasps and flies.

The life histories of these different gall insects vary greatly. Some remain in the galls during Winter and emerge in the Spring. Some desert the galls in the Spring and drop to the ground, remaining there for the greater part of the season, or even until the following Spring before producing adults. Some spend the Winter as half grown adults in the plants while others pass the Winter months in the egg stage. The life cycle varies from a few weeks to a full year for many of the species. Some produce one or two generations each year, others five or six.

Some life histories are very complex, especially in the gall wasps where a number of species produce what is known as alternation of generation, that is the succeeding generations are different both as to adulthood and the galls inhabited by the young. The third generation is identical with the first and has the same habits.

Some plant lice not only have an alternation of generation, but an al-

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Here's example of how uncontrolled mites can disfigure a Norway maple

The Quetico- Superior Country

Famous wilderness canoe country
shared by Canada and the
United States, accessible to millions
in central North America



Leland J. Prater, U.S.F.S.
Nature's benediction. A double rainbow across the Rainy Lake and Pigeon
River watersheds. A "Pot of Gold" at the end of each for Ontario and
Minnesota!

ASTRIDE the Minnesota-Ontario boundary and extending westward for nearly 200 miles from Lake Superior is a land of forests and waters unique on this continent. Fashioned from ancient mountains, its thousands of glacially created lakes provide a labyrinth of waterways threading a region rich in forests, fish, and wildlife.

For nearly three hundred years the region felt the impact of the white man's quest of its treasures, first furs, later wood and minerals, and now of those qualities that make it a great recreational area. Yet in large measure it is still unspoiled. It can remain so for all time and its past wounds be healed if its resources are used wisely.

Among its treasures none is so rare and so

worthy of preservation as the distinctive wilderness quality that still prevails over much of the region. Twentieth century voyageurs can travel for weeks by the same primitive means and in the same wilderness setting as the Indian and early explorers. Here people find solitude and gain perspective. In this country, which more than any other seems made for primitive enjoyment, they find release from the tensions of modern living.

This wild land of shining lakes, sparkling rivers, and rocky pine clad shores today is still faced with the threat of destruction of those wilderness values that make it important. Unless this area is preserved, North America will lose a priceless heritage.

The Quetico-Superior Country



Grant Halladay

Peace, Quiet, Solitude mean wilderness health. Drs. Karl Menninger and J. Berkeley Gordon attest to inherent factors of wilderness that lead to regaining perspective, overcoming "civilization's" impacts and acquiring character, balance and all the attributes that made pioneers great leaders.



Leland J. Prater, U.S.F.S.

Curtain Falls, but one of thousands of scenic high spots, from the shores of Lake Superior 200 miles west to Lake of the Woods and from south of the Superior National Forest to the Trans-Canada Highway, 100 miles to the north. The international boundary bisects this scene of majestic beauty.



PICTORIAL MAP

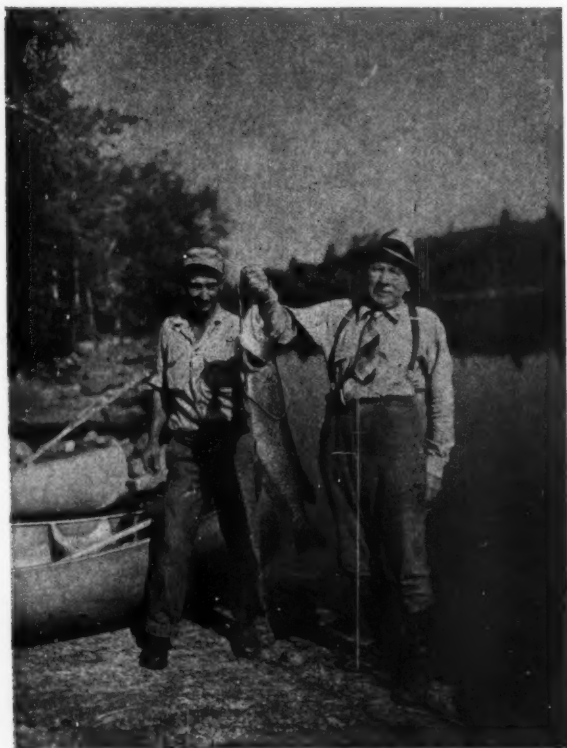
Close study of the pictorial map, above, of the Quetico-Superior Country will reveal the fascinating history and resources of the area. You can either take an "armchair trip" or start to pack your duffel and head for the area as a modern voyageur to learn first-hand of its many attributes.

AMERICAN FORESTS



This is the vast labyrinth of lakes and forest wilderness through which The American Forestry Association annually sponsors ten-day canoe trips as part of its Trail Riders of the Wilderness expeditions. This year two trips have been scheduled for groups of twelve members each. The first of these will put their canoes in the water July 6

on the northwest edge of the Superior Roadless Area, then paddle and portage a winding and picturesque course through more than a dozen glacially created lakes. The second expedition, July 19, will follow a different and equally distinctive route. These modern voyageurs will retrace the trails once followed by Indians and fur traders.



Leland J. Prater, U.S.F.S.

From 8 to 85, the challenge from fish and wildlife of the Quetico-Superior Country "accentuates the positive."

The Quetico-Superior program, endorsed by over 40 organizations in the U.S. and Canada, together with thousands of individuals, is one of the great worthwhile conservation projects of the century.

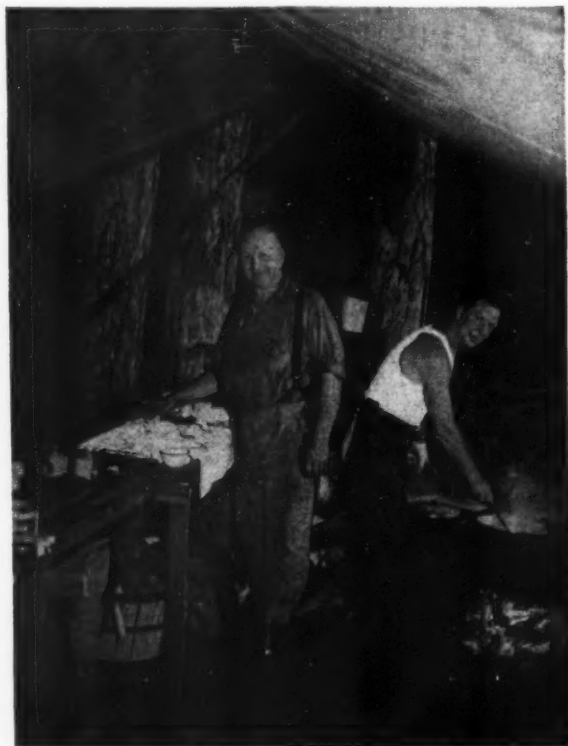
Scenic beauty, abundant resources, fish and wildlife, recreation, a living outdoor museum and scientific laboratory, health giving place to relax and commune with the basic worthwhile essentials of Mother Earth all add up to a package that we must pass on to posterity.

Eternal vigilance and sound management policies, including proper zoning, can preserve the Quetico-Superior Country not only for modern voyageurs but those of generations to come. Its final dedication as the International Peace Memorial Forest can serve to strengthen the determination of free peoples everywhere as the Statue of Liberty inspires all those coming to our shores for the first time.

The Quetico-Superior Country, comprising the Rainy Lake and Pigeon River watersheds, is a geographical entity. Thus its land management policies with respect to balanced resource and recreational use can and should be homogeneous. Principles of zoning can be applied to best preserve all the qualities for which the Quetico-Superior Country is unique on the North American Continent.

Much progress has been made and the goal of an International Peace Memorial Forest is nearer today than ever. High level agreement between Canada and the United States on adoption of common administrative principles, with, of course, no change in respective governmental jurisdiction, is still necessary to consummate the program.

Canada and the Province of Ontario are to be thanked for their understanding cooperation. As a result, the many elements of the program already in effect in the U.S. portion of the Quetico-Superior area have been made easier to administer.



Leland J. Prater, U.S.F.S.

Hungry? On Sarah Lake, then, let's partake of fresh caught fillets of fish and reflector oven raised biscuits.

13,356 Board Feet in ONE LOAD

"Big Red" gets out the big ones in California mountains

Timber comes big, out near Orick, California. That's where Ladew Timber Company runs a redwood logging show with two Big Red International TD-24 crawlers.

One of them usually builds roads, the other brings in logs. Last year Ladew got along with one TD-24, and its performance sold the second one. Part-owner James Headrick tells why:

"All last year our monthly production ran around 2,000,000 board feet with a single TD-24 working out the ridge tops where other tractors found conditions near impossible. Low repairs, practically no downtime, and high production are what the TD-24 brought to this logging show."

For the whole low-down on what the TD-24 can do, see your International Industrial Distributor. Find out about his reliable parts supply and fast service, too. You'll be a TD-24 man from then on in!

INTERNATIONAL HARVESTER COMPANY
CHICAGO 1, ILLINOIS



SNAKING DOWN THE MOUNTAIN—turning with power on both tracks—comes a Big Red TD-24 with two butt logs in tow. The one on the right scaled 7,216 board feet; the other 6,140 board feet. A good-sized load—but a cinch for "Big Red!"



INTERNATIONAL

POWER THAT PAYS



AFA Board of Directors Maps Program for Future as Highlight of March 24 Meeting

The American Forestry Association's Board of Directors, meeting March 24 at Washington, D. C. headquarters, received and approved a report on a recommended program of Association activities to be stressed during the next few years, selected Asheville, North Carolina as the site for its 77th annual meeting October 12-15, authorized payment of a \$15,000 outstanding loan, and heard its executive director report an addition of 8700 new members since January 1951.

The directors also elected Walter J. Damtoft of Canton, North Carolina and James J. Storrow of Boston, Massachusetts to serve as vice-presidents, named George O. White, state forester of Missouri, to fill the vacancy on the Board created by the elevation of Don P. Johnston to the presidency, and took a stand on several important legislative matters.

Strengthening of *American Forests* "so as to make it the outstanding educational and informational publication in its field" was regarded as the

Association's first and most urgent responsibility in a report by the Program Committee of which Samuel T. Dana of Michigan was chairman.

Colonel William B. Greeley was named chairman of the Association's Committee on Elections to nominate officers for 1953. Other members named were V. L. Harper of the U. S. Forest Service and Dr. R. J. Preston, Jr. of North Carolina State College.

Aggressive Association leadership in the campaign for effective forest insect and disease control, a program to push the establishment of small community forests, active cooperation with state forestry associations, and a stand of support or opposition to proposed legislation in accordance with the Association's "Program for American Forestry" adopted in 1947 were also recommended.

Chairman Dana's Program Committee, which included George L. Drake and W. B. Greeley of Washington, R. E. McArdle of the District of Columbia and DeWitt Nelson of

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S. L. Frost Leaves AFA as Executive Director

Effective March 31, S. L. Frost resigned his post as executive director of The American Forestry Association. He succeeded Ovid Butler in June, 1948, having established a reputation as a leader in forestry education in the South while serving as information chief, and later acting director, for the Texas Forest Service. Mr. Frost announced only immediate plans, to write a number of



S. L. FROST

forestry articles which have been much in his mind for some time.

Association president, Don P. Johnston, has selected a committee to interview candidates for the vacancy, and in the interim Fred E. Hornaday, long-time secretary and director of advertising, will have charge of Association activities.

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ASHEVILLE, NORTH CAROLINA NAMED SITE OF 77TH ANNUAL MEETING OCTOBER 12-15

Asheville, North Carolina, in the heart of the land often described as the cradle of American forestry, will be host to The American Forestry Association's 77th Annual Meeting October 12-13-14-15. The meeting will be held in conjunction with that of the North Carolina Forestry Association, of which AFA President Don P. Johnston was also president for four years. These same Associations last met in Asheville in 1931, 21 years ago. Tentative plans call for re-visiting some of the same attractions, such as the Biltmore estate where Dr. Carl A. Schenck first introduced to this country practical forestry on a commercial scale and launched his pioneer forestry school. Smoky Mountain National Park and the Pisgah National Forest are also nearby, as is the Coweeta watershed experiment. The meeting has been timed to take full advantage of fall coloring, and reservations are now being accepted at Battery Park Hotel, headquarters for activities. Details of the program will be announced later.



FOREST PEST CONTROL IS FOREST MANAGEMENT, TOO

Forest management means many things in modern America. It means protecting woodland from fire—it means harvesting practices that leave seed trees or young timber for tomorrow's wood crops—it means protecting trees from destructive grazing.

Forest management also means guarding woodlands from tree-killing insects and disease. Here, you see an airplane spraying an insect-infected forest.

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THE AMERICAN FORESTRY ASSOCIATION

Though most of the trees the author
knew as a girl are gone, they
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spent over half a century ago

By EDITH HOGUE KENDALL



TREE FRIENDS

"BEAT you to the mulberry tree," shouted brother Harry. We were off. Although I was a girl, my two years seniority gave me the advantage. I used my bare toes as springs, joyously speeding over the soft, freshly ploughed earth. I reached the tree first and was well up the crossbars Father had nailed to the trunk, when Harry arrived.

Up we went, I up the "tall" branch, he up a lower. The birds screamed their protest as they flew to the nearby swamp. Once at the very top, we sat nonchalantly eating the juicy colorful berries, sometimes painting our faces Indian-fashion with them. It was not long, however, until neighbor children came along.

Again we were off; this time to the pawpaw thicket. Here we gathered the long shiny leaves and carried them to the shade of the wild cherry

tree. We girls were soon making hats. To form a bandeau we pinned the leaves together with thorns from a nearby bush. To make the top we used one enormous leaf and for ornamentation there were dandelions.

Thus many of the days passed on our big farm in southwestern Michigan. That was more than 50 years ago. The trees were our friends. There was the tall whitewood (tulip tree) with its pretty orange-green tulip blossoms. We wanted, of course, to get a bouquet but could not manage it. The trunk was too big around and too tall and straight before it branched out. Even Father refused to help.

There were the beech trees everywhere. We cut our initials in the smooth light bark. One tree carried the carved outline of an Indian head. Father said it had been there ever since he could remember. The small triangular nuts we picked up in the fall and the "sprouts" we chewed in the spring.

In our yard, in the groves and by the roadside were the sugar maples. Besides offering us shade, they gave maple sugar. "Sap's comin' up," Father would say about the middle of March. "Get the pails out." We went with him as he bored holes in the trunk, put in little spiles which as I remember he had fashioned from elder branches and hung the pails.

Next day when he hitched up old Bess to the stoneboat, we were right there to help gather sap. At the house Mother boiled the sap until it was of a syrupy consistency when she canned it. Often we "sugared off." We boiled down the syrup until it hardened in water or in the snowdrift outside the kitchen door. When it cooled it was real maple sugar. That was the only kind of sugar Father knew as a boy.

In springtime we watched the hillside for a splotch of purplish pink which we knew was the blossom of the redbud or Judas tree. We looked a bit askance at it for upon it, said Mother, Judas had hung himself. The quaking aspen nearby Mother asserted had been so moved at the crucifixion that it had begun to tremble and had been trembling ever since. That same Judas tree is there today. I saw it last spring and was surprised to notice it had grown but little. These trees to this day remind me of Christ, his hands and feet nailed to the cross.

There was the basswood from the blossoms of which the bees made their best honey. It was, however, their little, hard, ball seed pods which intrigued me. There were the tamaracks in the swamp which as legend had it could hold up these trees but nothing else. At least it never held up the roads which from time to time

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SINCE 1858 - BUILDERS OF CONSTRUCTION EQUIPMENT

Crafts' Case for Federal Forest Regulation

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lation has been established by the Washington Supreme Court in a decision upheld by the Supreme Court of the United States. According to *The New York Times*, the principle established was that "private owners of the nation's renewable natural resources do not have the unqualified liberty to use and destroy them as they see fit." Said the Washington Court, the "great unwritten compact . . . between the dead, the living, and the unborn . . . requires that we leave to the unborn something more than debts and depleted natural resources. Surely, where natural resources can be utilized and at the same time perpetuated for future generations what has been called 'constitutional morality' requires that we do so."

The specific and widespread endorsement of forest regulation by many organizations and groups is further evidence that—at least for the record—the philosophical barrier to forest regulation per se has been largely overcome. The Society of American Foresters, American Forestry Association, the C.I.O., the American Farm Bureau Federation, the Lawyers' Guild, the Izaak Walton League, the numerous other groups at one time or another have endorsed the principle of public regulation.

(EDITOR'S NOTE—Endorsement of the principle of public regulation should not be construed to mean that The American Forestry Association endorses federal regulation. Rather is the Association on record favoring development of needed controls "state-by-state as local conditions and forest practices require.")

Even the West Coast Lumbermen's Association and the Western Pine Association supported the Washington law when it was before the Supreme Court of that State.

The National Lumber Manufacturers' Association, one of the prime opponents of forest regulation in the past, no longer opposes it outright, but has issued a fence-straddling policy statement.

The Forest Industries Council, representing the American Pulp and Paper, American Pulpwood, and National Lumber Manufacturers' Associations, has advocated state forest regulation when deemed necessary or desirable by people of the State. The Council of State Governments has urged each state to consider forest regulation, and the Association of State Foresters recognizes the neces-

sity in some States. The latter group could hardly do otherwise when one recalls that a third of the states already have regulatory laws of various sorts on their statute books.

Thus, I feel that a great step forward has been made in the last decade. Thinking Americans now pretty largely recognize the public interest stake in the individual forest enterprise. They recognize that a proper function of government is regulation to see to it that an individual does not destroy, or leave in unproductive condition, renewable natural resources on lands which he may own in fee simple.

However, a formidable psychological barrier still exists when one proceeds from the question of public forest in general to federal participation in such regulation.

Despite the general acceptance that forest regulation is desirable in principle, why is it needed? The need as I see it, hinges on three points.

First, I think we all recognize our need for wood and accept it. The indispensability—and I use that word advisedly — of forest resources and products to the nation's well-being and security is manifest to all of us.

Secondly, the condition of the nation's private forest land is unsatisfactory. The latest surveys show—and practically all authorities agree on the basic figures—that the drain of saw timber trees substantially exceeds growth. This is partially explained by the large areas of old-growth in the West, where there is little appreciable net growth. But these areas alone are not sufficient when they come into productivity to bring growth and drain into balance. Also, our present levels of drain are at a substantially lower level than the nation may need in the future. Thus, we have a situation in which we are gradually using up our capital growing stock of the larger and better trees.

Do not let the near balance between growth and drain of all trees, small as well as large, deceive you. The smaller trees included in such a calculation are suitable for firewood and pulpwood but not for manufacture into lumber. And even here the total figures conceal a deficit of desirable softwoods which is largely offset by a surplus of less desirable hardwoods. Three-fourths of our for-

est land is in private ownership. Therefore, if forest resources and products are essential to the national welfare, the healthy condition of private forest lands is likewise essential to the nation.

On private forest land two-thirds of the cutting is poor or worse; and 62 million acres — or 18 percent — is poorly stocked or nonproductive.

Those who argue that all is well because the gap between growth and drain appears to be closing are practicing self-deception. The "closing of the gap" theory is based on trends derived from comparing past and recent growth-drain estimates. Such comparisons have little meaning for several reasons. The earlier estimates were little more than guesses; overall comparisons conceal questions of quality and kind of timber; growth is bound to step up as mature old-growth is cut and replaced by young growth; and the level at which a balance may be achieved is ignored. Growth and drain would be in balance even if they were both zero.

The significant facts are that the most recent estimates show a deficit growth in relation to drain and the best forecasts of the future likewise show a significant deficit. Looking 20 to 25 years ahead and making generous allowance for present trends and improved practices, sawtimber growth may still need to be stepped up 70 percent above prospective levels at that time or twice 1945 levels. If growth and drain of all trees—small as well as large—are to be in balance, growth will need to increase ten percent above estimated future levels.

Thirdly, we feel regulation is needed to restore lands to productivity because other forestry measures alone will not do the job. This country has an extensive system of public forests — national and state. We are also embarked on an extensive system of public cooperative aids and services to private owners — inducements, if you please, to get private owners to practice forestry. These cooperative aids and services include among other measures fire, insect and disease control, large-scale public forest research, individual technical advice and service, public education and demonstration, and planting aids.

Substantial progress has been made in recent years, particularly by the

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Chapman's Case Against Federal Forest Regulation

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age value alone, which is the equivalent of over 100 billion dollars translated to the value of the finished products. Bear in mind that this huge loss would not have been prevented by either federal or state regulation based on technical knowledge existing in past decades, which worked flatly against nature.

The seed tree "law" of New Hampshire, or the similar "recommendations" under the Massachusetts non-compulsory law, for second growth old field white pine—have also been flat failures, except under unusual circumstances, because they have ignored peculiar laws of nature regarding white pine reseeding. Yet we propose to regulate land owners when we still don't know many of the answers despite our studying white pine in New England for over 50 years.

We don't have to stop with the white pine. What is going to happen to second growth northern hardwoods, and occasionally to old growth, when it is cut clear for pulpwood? Accumulating evidence indicates that these second growth dense young northern hardwood stands if so treated will not produce a third crop of vigor and quality but will degenerate into worthless brush. We had to wait several decades to get convincing evidence on this point alone and have not yet found out what the best substitute measures may be to maintain the high percentage of black cherry and ash that have proved a bonanza in recent cuttings.

Do we yet know the most practicable and economically possible measures by which the invasion of balsam fir, which is swamping our northern New England spruce-fir forests and is the sole and direct cause for the wholesale destruction by the bud worm of both spruce and balsam, can be overcome, and spruce, the king of the northern forest, restored in its role of ecological regulation of this pest? Have we coped successfully with birch die-back disease, the little-leaf disease of southern pines, or the white pine pole blight of Idaho? Not as yet!

And in the light of this great need for more knowledge and better measures for insuring the health and perpetuity of the forest, are we yet fully prepared to give complete power to arbitrary governmental authority for determining what owners shall and shall not do with their woodlands?

On the other hand, as fast as facts are firmly established, the interests of public welfare and survival of our culture require that unnecessary destruction be prevented by the exercise of the police power of the state. Pursuing the general principle of decentralized authority, this power should be exercised not by the federal government but by the states. In the recent referendum by the Society of American Foresters, 70 percent of the members voted against direct federal regulation of private forests; only 30 percent were in favor of such a plan.

Is it possible for states effectively to regulate and control injurious and destructive forestry practices within their borders? The answer is that in the two states of Oregon and Washington this has been and is being done successfully, with complete support of the forest industry and of the public.

It was in Washington State that an owner who resisted the enforcement of the state regulatory law brought the case to court which was finally decided by the U. S. Supreme Court in upholding the state's power. Interestingly enough, the testimony in this case cited the famous opinion of the Supreme Court of Maine rendered nearly half a century earlier, in which the legislature was advised that the state possessed these powers.

What sort of regulation does the Forest Practices Act of the State of Washington require of owners and operators, that these operators and owners are willing to support? Joint responsibility, incidentally, is required of both parties. The measures are:

- 1) Retention of seed trees. For ponderosa pine this means all trees less than 16 inches in diameter B.H. or four trees larger than this per acre where needed.
- 2) Five percent of area in lodgepole pine to be left in solid blocks for seed.
- 3) No more than half the trees of smaller size in young stands to be cut in any ten-year period.
- 4) West of the Cascades, five percent of each quarter section to be left in blocks for seed, of trees 16 inches and over.
- 5) Laws relating to fire protection and other requirements imposed on operators.

The teeth in these regulations consist in enforcement by a trained state

personnel, adequate to handle the operations, a bond of \$8 per acre for compliance, and artificial restocking by the state on failure of the owner to make good.

These regulations are the result of intensive research as to methods of regeneration of the different forest types, over a period of 40 years, during which time a completely ineffective method of partial cutting has been ordered by edict on the national forests, and was only abandoned when overwhelming evidence of the Forest Service research staff proved that it was a failure.

The problem in these northwestern states is made easier by the prevalence of large corporate ownerships, which are now extensively committed to continuous forest production. On the other hand, the crux of the situation throughout the country and especially in the East lies with the preponderant class of small owners.

From the economic side, forestry practice essentially requires the postponement of a portion of the present realization value of the standing timber, for the sake not only of greater future returns from existing trees but also of securing reproduction of desirable species. When dealing with over four million of such owners there is quite a difference between saying "you've got to wait (and take a chance)," and convincing them that it is more profitable to wait.

Appeals based on general public interest fall rather flat when the mortgage is due, the son is in college, or sickness depletes the bank account. Yet most of the really destructive cutting may be not only unnecessary but often unprofitable even on a cash basis, to both owner and operator. Public opinion in these eastern states is molded largely and necessarily by the problem of these small owners.

Evidence gathered both by the U. S. Forest Service and by a recent survey by the writer in the Northeast sponsored by pulpwood interests indicates that destructive clear cutting is found largely on these small holdings. Can a sufficient force of federal inspectors, or even of state forestry personnel, be marshalled at this stage of the game to compel hard pressed owners to wait when they think they must have the cash now? Did prohibition enforcement work?

The net result is that those states

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Case for Federal Regulation

(From page 38)

larger forest owners and operators, but relatively the progress has been much less among the millions of farmers and small forest property holders. That is where the basic problem lies.

Industry can't do the job itself. It controls only about one-fourth of the private forest land and includes less than one percent of the owners. The four to five million small non-industrial owners, farmers, small town businessmen, absentee city folk, summer recreationists, and others, are not going to submit to direction by the small fraction of industrial owners, whose guiding motive is profit for themselves.

Those who say let public forests, cooperative aids and services, and private initiative do the whole job are being unrealistic. Public forests occupy largely the poorer lands. They will never be sufficiently large nor productive to meet the nation's needs by themselves; and they should not be expanded to the point where they can. After a half century of public forests and after 25 years of the Clarke-McNary law, which is the basic authority for public cooperative aids and services, we still have an unsatisfactory forest situation. The outlook for two decades hence is continued unbalance of growth and drain despite progressive trends.

Public forests and cooperative aids and services have not done the job by themselves in the past and I believe they cannot do so in the future. The many groups, organizations, and states that are on record favoring public regulation hold this same view. Otherwise, why would they favor it? This viewpoint is the consensus of informed judgment in the United States today.

In some instances pleas for delay in regulation in order to give other methods more time may be based not on a sincere belief that other measures will do the job, but on a desire to procrastinate and evade the issue.

There is still another factor. The public is spending millions of dollars a year in cooperative aids and services. I understand it is not possible by contract or otherwise to establish a covenant running with the land for such services. You who are paying the bill should be protected in some way so that the private individual cannot take full advantage of public inducements and subsidies and yet

turn right around and destroy his timber resources and the productivity of his land. You, the taxpayer, have a stake in that.

The Forest Service believes public forest regulation, as needed in this country, is only one of a series of forestry measures necessary to keep our forest land in productive condition and to result in forest growth equal to our national needs. Forest regulation is not a panacea. It is not a substitute for other forestry measures. It is a complementary measure of co-ordinate importance with public ownership and public cooperative aids and services to private owners.

The forest regulation contemplated by the Forest Service does not involve volume or area regulation or sustained yield. In other words, the control exercised would not tell a man where, when, or how much he could cut.

The Forest Service believes that there should be state forest regulation, administered by the state. But it also believes, and this is where the issue lies — that these state laws should be within the framework of certain over-all standards prescribed by federal statute. It believes that state regulatory activities meeting the federal standards should be matched with federal funds made available to the state. It believes the federal government should have authority to step in and administer regulation meeting the standards if the states fail to do so within a reasonable time. Should this happen, and the states subsequently enact state statutes meeting the standards, the federal government would in due course step out.

The Forest Service is sometimes represented as favoring straight federal regulation without state action. This is not true.

The Forest Service believes the over-all basic framework as expressed in the federal statute should be in general terms, to provide where applicable for adequate restocking, to prohibit premature or wasteful cutting in young stands, to reserve for growth and subsequent cutting sufficient growing stock of thrifty trees to keep the land as productive as practicable, to prevent undesirable logging methods that will cause avoidable damage to young growth, to regulate grazing and prevent unreasonable damage to tree growth, to

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An Illustrated Manual of Pacific Coast Trees, 2nd Edition, by Howard E. McMinn and Evelyn Maino. Published by University of California Press, Berkeley, California. 409 pages, illus. Price 4.

A handy tree guide for the Pacific coast area, well illustrated and written in non-technical language for amateur understanding. The introduction explains the principal characteristics of botanic differentiation. There is a key to genera and a glossary of botanical terms. A useful feature is the Lists of Trees for Various Uses by H. W. Sheppard in the addenda. The index lists the species by common as well as scientific names.

Forest Management, by Herman H. Chapman. Published by Hildreth Press, Bristol, Conn. 602 pages, illus. Price \$6.

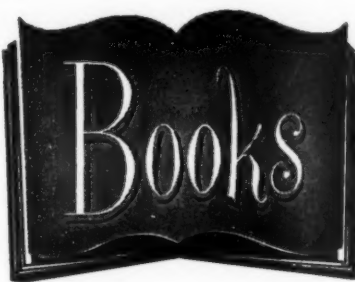
This text is a revision of *Forest Management* by the same author in 1930. Today we find many more owners endeavoring to follow a continuing plan of business for their forest properties, and recognizing this expanded interest as well as the increased number of college forestry students, the author has responded with a volume explaining in greater detail the key factors which contribute to successful forest management.

The wealth of background material used to prepare this book is indeed a complete library of its own and a monument to the prodigious efforts of the author. Cited are 1263 references (appended to each chapter) which are drawn from available current literature including *American Forests*, the *Journal of Forestry*, and Canadian and British forestry journals, including standard textbooks.

No forestry school curriculum would be complete without this vital textbook, and certainly all forest owners and forestry personnel should find the information valuable to their private and public pursuits. The author is not only a leading authority in his profession but has produced a record number of forestry textbooks since 1915.

Subsidies for Farmers, compiled by Robert E. Summers. Published by the H. W. Wilson Company, New York, New York. 208 pages. Price \$1.75.

This new Reference Shelf book offers a compilation of interesting arguments on the subject of "Should



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farmers be subsidized, to what extent and how?" Containing articles by authorities with definitely differing beliefs, the author lends a note of continuity with running comments introducing each major division.

Important Tree Pests of the Northeast, edited by Committee on Tree Pest Leaflets, New England Section, Society of American Foresters. Published by Evans Printing Co., Concord, New Hampshire. 192 pages. Price \$2.

A compilation of four page treatises describing 51 insect and disease pests which attack trees. Each subject is authored by a specialist on each particular insect or disease. There are also papers on spraying and dusting to control pests, use of concentrated sprays applied by mist blowers, and the preparation and application of various spray materials. The subjects are grouped in the following categories: leaf-eating insects, sucking insects, borers and weevils, leaf diseases, bark and stem cankers, diseases of the sap stream, wood rots, and joint attacks of insects and fungi.

Large Was Our Bounty: Natural Resources and the Schools, by the Committee in Charge of Preparation of the Yearbooks, National Education Association—W. J. McGothlin, chairman. Published by the Department for Supervision and Curriculum Development, National Education Association, Washington, D. C. 216 pages, illus. Price \$2.50.

This book is made up of a glance at the past, a look at the present, and a glimpse at the future. Its concern

is with the development and use of our natural resources and what schools are doing to make that use wiser. The authors endeavor to explain why the school is obligated to make the facts of resources known; to make the possible choices and consequences clear; and to guide individuals to establish sets of values which will balance immediate gain against future need and private riches against social good.

Ecological Animal Geography, by W. C. Allee and Karl P. Schmidt. Published by John Wiley and Sons, Inc., New York, New York. 715 pages, illustrated. Price \$9.50.

A rewritten and expanded edition of the standard work on the ecological basis of animal geography originally composed by the late Richard Hesse. As in the first edition, the book devotes equal attention to all phases of animal geography, oceanography, limnology and terrestrial animal life. The text, in a greatly simplified terminology, reveals all facets of what determines an animal's ability to live in one environment rather than in another.

Practice of Wildlife Conservation, by Leonard W. Wing. Published by John Wiley & Sons, Inc., New York, New York. 412 pages, illus. Price \$5.50.

Recognizing a need among students, conservation personnel and the public for a text covering the general fields of conservation and management, Dr. Wing has prepared a thorough coverage of the entire field. Successfully combining theoretical and scientific information with actual field practices, he gives the reader the biological and ecological technology for management.

Insect Control by Chemicals, by A. W. A. Brown. Published by John Wiley and Sons, Inc., New York, New York. 817 pages, illustrated. Price \$12.50.

For students and specialists in toxicology, insecticide chemistry and economic entomology, this book presents all pertinent data regarding recent chemicals for insect control. In addition to describing and illustrating modern application equipment, an evaluation is given regarding the hazards of these insecticides to plants and animals, by examining their effects on the balance of nature and discussing the question of insecticide-resistant strains of insects.

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Case Against Federal Regulation

(From page 39)

in this region which have tried to cope with the problem have pursued the policy of education, example, persuasion, and field assistance, to induce as many as possible of these owners to serve their best long-run interests as well as incidentally those of society, by adopting conservative cutting measures. When accompanied by accurate estimates, selective cutting, and competitive bids, the results are often a greater immediate cash return in addition to the reserve values retained.

Can anyone believe that this educational phase is dispensable and a mere subterfuge to avoid the necessity for forceful immediate measures—or really imagine that it would be an improvement and speed up the process of abating destruction, if the legislation proposed by the national authorities were substituted? These federal proposals contemplate a period of grace during which states could pass regulatory laws approved by the Service. On failing to do so, the federal authorities would step in and take over absolute power to enforce regulations as conceived and promulgated in Washington.

But, claim the advocates of such a course, these educational efforts are comparatively futile. Meanwhile, the people and their heritage are being helplessly impoverished.

Are they futile? From the recent survey of New England, New York and Pennsylvania, cited afore, for which I was responsible, it would not appear so. In one typical state, New York, under the Forest Practices Act, 15 district foresters within three years have secured better practices from 2788 owners, on 939,958 acres. These measures are purely voluntary. Each case is now an example for adjoining owners.

Similar beneficial results have followed comparable laws in Maryland and Massachusetts. In all the states affected, the advice and assistance of public foresters, cooperative associations—such as Connwood in Connecticut, the Northeastern Forestry Foundation in the other New England states, the Otsego Forest Products Cooperative at Cooperstown, New York, and the system of state-appointed private lumber agents in New Jersey (who now manage one-half the total cut for that state)—has within a comparatively recent period become increasingly effective in turn-

ing the tide towards sound forest management.

We have only begun to realize the possibilities of this method of democratic decentralized approach to the problem of balancing government regulation and free enterprise in the handling of these small woodlands. Shall we then abandon it as futile and substitute at once the police measures advocated by partisans of a simplified system of totalitarian authority? Progress does not lie in that direction.

The whole problem of forest regulation, to me, seems to hinge around eight points, as follows:

- 1) Government as such possesses power, and if unrestrained, absolute power, over the lives and property of citizens.
- 2) The individual possesses inalienable rights to life, liberty, and the pursuit of happiness.
- 3) The interests of society as a whole as represented by the police power are expressed in laws and law enforcement.
- 4) But the rights of the individual are protected through the Constitution, which is the bulwark of liberty, and the fruit of a thousand years of struggle against state power.
- 5) All regulation of private initiative should be therefore an attempt to striking a balance between state power and human freedoms.
- 6) When regulation becomes an arbitrary and naked assertion of state power it destroys this balance. The same is true when individuals assert complete independence in managing natural resources on which the future of the nation may depend.
- 7) Arbitrary extremes, either way, seem simpler, more direct, more forceful, more expeditious, and hence, more efficient than trying to work out more time-consuming measures that seek the maximum sum of good by protecting the interests of both the public and the individual. Hence, because of these delusions, radical and fanatical measures appeal to all persons who want short cuts, are mentally lazy, and in other ways are abnormal and unwilling to do careful constructive work in building up human relations.
- 8) Over simplification of problems based on these apparent advantages is a delusion and tends to pile error on error and defeat its own ends. The

trend of efficiency is from over-all simplicity to over-all complexity, in all forms of life including human endeavor. Sure and quick cures are about as effective as quack medicines. Ultimate simplicity, efficiency, and power are attained when through complex adjustments, the right thing is available at the right time and in the right place. Will anyone question the need of complexity in securing this result?

Crafts' Case

(From page 40)

prevent clear cutting except where silviculturally desirable, and to provide for methods of protecting lands against fire, insects and disease.

It believes that the state statute, in addition to meeting these standards of forest practice, should also provide for administration by a single state agency, employment of competent technical personnel, and for advice and technical assistance to forest operators. It believes that different rules of forest practices should be established for different areas of the country; that there should be authority to except certain areas; that area advisory boards should be established to help formulate desirable rules of practice; and that working plans for individual forest properties may be approved in lieu of the standard rules of forest practice. This is the regulation that the Forest Service advocates.

It has been alleged that the Forest Service would favor a provision in the federal statute that would permit the federal government to withhold any cooperative forestry assistance being rendered by it to a state unless the state enacts regulatory legislation meeting federal standards. This is not the position of the Forest Service, and it would not favor such action.

May I say first that federal participation in forest regulation is the official position of the Department of Agriculture, has been supported by the four most recent Secretaries of Agriculture, by five Chiefs of the Forest Service, by the present Secretary of the Interior, and by the late President Roosevelt.

There are two reasons for federal participation: 1) national interests are involved, and 2) the states themselves will not do the job.

As to the first point, I think we all recognize that forest resources are a basic national resource. Fire, insects and disease do not respect state lines. Neither do rivers, whose headwaters

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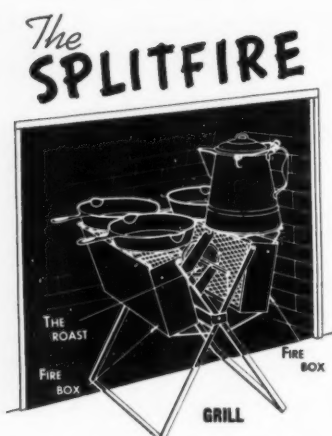
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attack by means of a well timed spray program. The spruce gall aphid is controlled, for instance, by a miscible oil spray applied early in the Spring, followed later when the young are crawling, with a contact spray, such as nicotine sulphate. Contact sprays you will recall are those which must *hit* the insect to be effective.

Trapping the larvae in the galls with a thick spray solution of molasses and nicotine sulphate has been tried with only partial success. However, this is a messy job which clogs up your sprayer and is not recommended for the average tree owner.

Parks or Dumps?

(From page 11)

dalism and thoughtlessness add up in dollars and cents—your money and mine. And this does not take into account danger to life and limb from fire, broken glass and careless shooting, or the distasteful experience of arriving after someone else has filthied up a place or has defaced some of the conveniences. Or, even worse, has permanently injured a natural phenomenon.

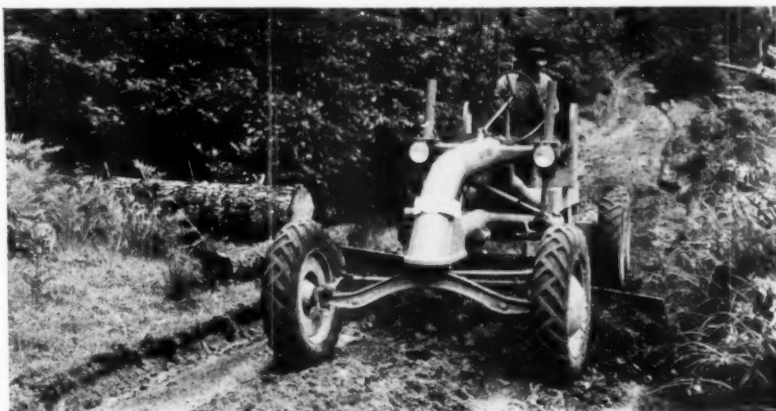
I personally have noted many instances of thoughtlessness and lack of consideration that amount to unconscious vandalism. At Casa Grande National Monument in Arizona a teen-age boy and his mother were going through a four-story prehistoric mud structure when the boy suddenly tried to climb over one of the walls. A sizable chunk of the wall promptly fell off.

At Zion National Park in Utah a group of teen-age girls so ruined the plumbing and otherwise messed up a comfort station that the entire building had to be closed, thus greatly reducing the facilities available, and making campers walk to a more distant facility.

At El Morro National Monument in New Mexico a party of amateur photographers lagged behind Superintendent Irving McNeil, Jr., in his guided tour. The spokesman for the group claimed to be a frequent visitor to this Monument and assured Superintendent McNeil that his party would be very careful.

When Mr. McNeil conducted his next tour, he discovered that several branches had been cut off one of the cactus plants. Apparently they were in the way when one of the party had tried to photograph the inscription above it.

The ranger at Bandelier National



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3. Drown your campfire, then stir and drown again.
4. Ask about the law before burning grass, brush, fence rows, or trash.

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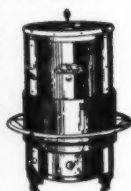
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Monument in New Mexico explained to a group of us that a glass had to be placed over the only petroglyph to be found in the Monument. Why? Because ever-eager souvenir hunters have picked off a good portion of it with their itching fingers.

So much of this vandalism and carelessness stems from thoughtlessness and ignorance. People do not see the true significance of their actions. They do not multiply their seemingly minor offenses by the millions of visitors that enter the parks and forests each year. They fail to see that a removed potsherd, stalactite, piece of petroglyph or petrified wood, wildflower or pretty stone leaves the area poorer—and often uglier.

When you enter a campground by a delightful sparkling mountain stream, you are full of anticipation at the prospect of enjoying the beautiful out of doors, still unspoiled by

man. What bitter disappointment when you find it strewn with fly-laden watermelon rinds, dirty papers and beer cans! Very likely this very thing has happened to you.

People should be taught to leave a park or forest in as good condition as they found it—or better. If they would remember the few simple rules of outdoor good manners and good housekeeping, our parks and forests would be more enjoyable places for everyone. And future generations would inherit these natural treasures which are their due—beautiful and unimpaired.

The key to the protection of our parks and forests is adequate appropriations. The need for this cannot be stressed too much. But the people who visit these areas can help immeasurably by heeding the graphic forest fire slogan: "This Is God's Country—Don't Make It Look Like Hell!"

Jokers Wild

(From page 22)

were his trout. He sent a jubilant telegram to his boss, an advertising executive who prides himself on being an epicure, telling him that he had a dozen fine trout for him, and that he could plan on having a big dinner party the next night.

The next evening, all hell broke loose. The cook called the attention of the advertising executive to the startling and undeniable fact that the fish were run-of-the-market mackerel. Horrified, the host confirmed the cook's opinion. He seethed, fulminated, snorted and swore violently and with eloquence. He was a man of action.

His reputation as a host was at stake, so the executive phoned the chef of his favorite restaurant, told him that he had to have a dozen trout of two pounds or more weight, and that he had to have them within the hour. He groaned when told what it would cost.

He was really steamed up when he called the joker. He knew that this young man had a proclivity for pranks, but this was the first time he had been on the receiving end of one of them. It would also be the last, he said over the telephone; he said it vehemently and with appropriate adjectives. The joker had no adequate defense; his stammered explanation was unconvincing and carried the unmistakable evidence of personal guilt.

The dinner was a success. The restaurant trout were not too bad. For

the next two or three days, the joke-smith was miserable. Down deep in his heart he knew who was responsible. He thought of calling the competitor and he thought some of waiting in a dark alley with a blunt instrument until the culprit passed. But, on reflection, he decided that a dignified course of silence and inaction would be infinitely wiser.

Then the trout arrived. He chased his secretary from his private office, cautiously thawed the fish enough to remove the paper, almost convinced that he would find suckers or bullheads. But, to his joy, the trout were intact, lovely in color, a picture for his tired eyes. He marched into the office of his superior and proudly exhibited the trout. He openly admitted that another joker had taken his measure and beaten him handsomely. He also uttered a vow, which he has kept, that never again would he indulge in the vice of practical jokes. The boss, at heart a tender character, beamed and forgave him.

Jokers wild! They can destroy the peace that most of us have come to associate with hunting and fishing; they put a devilish and impossible strain on the companionship that constitutes the background of a real holiday.

Personally, I'd rather invite a typhoid carrier or someone suffering from a slight case of the bubonic plague to my camp than I would a known joker.

Do You Want to Take a Walk?

(From page 19)

the tough in body and resolute in purpose, like Earl Shaffer.

Nature furnishes many delightful sidelights to all trail visitors. In the early spring the flame azalea in the Smokies sets the forests ablaze with color. In May, Washington hiking clubs plan their trillium trips to the Blue Ridge. As Charlie Thomas, retired Washington postman and veteran of 50 years of hiking in the Virginia mountains says, "There are just trillions of trilliums." Wild strawberry shortcake is standard dessert on Memorial Day trips to the Shandoah National Park.

New England boasts some brilliant colors, too: the red of the bunchberries, growing low on the side of the trail; the clusters of red berries on the mountain ash in the early fall; and the red of the sugar maples in October against the yellows of the birches and the dark green of the spruce. But for those who look hard, there is another red—the wild cranberry, nestled in the rocks of the

3000-foot peaks. It is sweeter and darker than the bog cranberry, and is delicious on cereal, in muffins or just as a sauce.

The construction and maintenance of the long brown path represents years of hard work. Benton McKaye conceived the Appalachian Trail and first publicized the idea in an article entitled "An Appalachian Trail, a Project in Regional Planning," which appeared in the *Journal of the American Institute of Architects* in 1921. He envisaged a footpath extending from Mt. Washington, New Hampshire, highest peak in the north, to Mt. Mitchell, North Carolina, highest peak in the South.

Parts of this master trail already existed. The Appalachian Mountain Club had built a network of them in the White Mountains. The Green Mountain Club had partially completed the Long Trail in Vermont which was to extend from Canada to the Massachusetts line. The Palisades Interstate Park Trail Conference had

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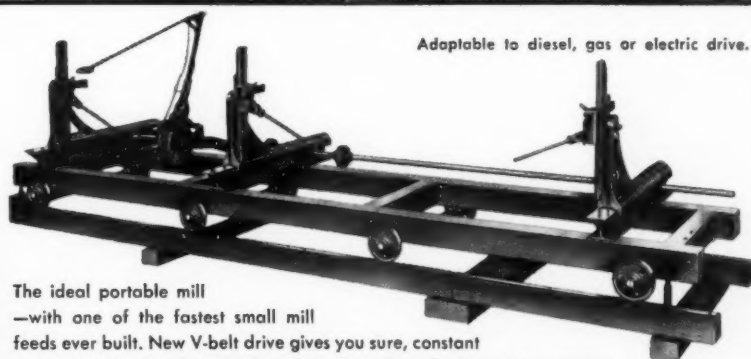
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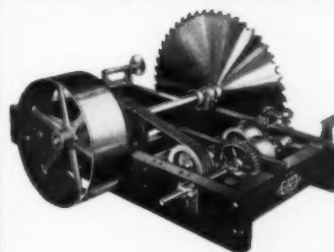
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just been organized to develop trails in the Harriman and Bear Mountain sections of Palisades Park.

McKaye's proposal aroused enthusiasm among the clubs of the Northeast, and representatives met in Washington in 1922 to organize the Appalachian Trail Conference, elect officers, and discuss ways and means. But the ways and means lacked push. After two meetings the idea degenerated into a fireside philosophy.

At the third meeting, held in Washington in 1926, Judge Arthur Perkins of Hartford, Connecticut, matter-of-factly stated, "All we want is 1000 miles of trail. If we get 1000 people to build a mile apiece, the work will be done." They made him chairman of the conference!

Rather shaken, he returned to New Haven in time for his usual Monday luncheon with two young lawyers. "I've just got myself into something, and I'm counting on you to help me," he told Henry Buck and Myron Avery, who later became chairman of the Conference. Judge Perkins got help. Among them they instigated the building of a trail across Massachusetts and helped route the trail in the Delaware Water Gap area.

Myron Avery transferred to Washington within a year and set about forming a local club to support the work of the Conference in the Blue Ridge. The Potomac Appalachian Trail Club, as the local club was called, made tremendous contributions to the trail. It laid out 180 miles of trail from the Susquehanna River in Pennsylvania to Rockfish Gap near Waynesboro, Virginia, and was the first trail-making club south of Harrisburg, Pennsylvania.

The first official work trip of the club was a nightmare. Three members—Myron Avery, Harold Anderson, and Frank Schairer—participated. With the exception of Myron, who had learned from previous work in the Maine woods, the men came equipped only with Boy Scout axes. From Harpers Ferry they started up Chimney Rocks through a tangle of poisonivy and small saplings. The Boy Scout axes became dull after chopping through 20 feet of small growth, and by the time they came to the top of the rocks they were using them like saws.

They had brought only one canteen of water. Though it was early winter, the unusual exercise made them hot and thirsty. Myron, however, had a can of apricots and the men rationed the syrup drop by drop.

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It was a sad but wiser trail crew that returned to Washington.

On their next trip they carried pruning shears and carefully avoided touching the wild quartzite grindstones with their axes. They have since developed their own specialized clipper for branches up to two inches in diameter and have made use of double-bladed weeders for summer growth.

Every week end those early members of the club worked on the trail, and by the end of the first winter 15 people were participating. They had one major objective: to complete the trail between Harpers Ferry and Bluemont in time for the Red Triangle Club of Washington to use it on their annual spring trip to the mountains. They finished the trail, but they had to pay a couple of mountaineer youngsters 50 cents to help hack through the last one and a half miles. So far as anyone can remember, this is the only paid labor used in constructing the Blue Ridge section of trail.

Mountain people have a reputation for not taking to "furriners," but Frank Schairer managed to establish a good working relationship with the Blue Ridge natives. The mountaineers kept a sharp eye on the queer folk from the city who came up there to hike, just to make sure they didn't get too near a "corn likker" still. Once some club members hiking in the Hazel Hollow area wandered too close to one. The mountaineers set the woods afire, and the hikers left in a hurry. Yet the trail progressed, and within two years the club had completed 60 miles.

About this time a hiker came into Washington complaining, "Where's that trail you've been talking about? I couldn't find it." Sure enough, the trail they had worked so hard to cut was overgrown again. It was obvious they needed people to be responsible for keeping it clear, and over them a supervisor of trails to coordinate the work.

Frank Schairer was appointed to the job—a logical choice because of his ability to get along with people. But Frank has a different version of the appointment. He had been treasurer of the club since it was formed November 22, 1927, and it wasn't until two years later that an auditing committee caught up with his accounting system. Their report: "All monies accounted for, but the treasurer has no books." Frank had been using little slips of paper which read "Charlie Williams paid me \$1" and

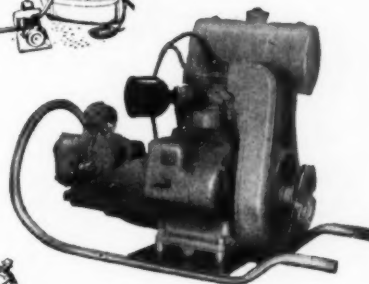
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FIRE
EQUIPMENT
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Financial Statement

The American Forestry Association

BALANCE SHEET AS OF DECEMBER 31, 1951

ASSETS		LIABILITIES AND SURPLUS	
Cash	\$ 38,943.20	Accounts Payable	\$ 5,609.93
Accounts Receivable	6,116.66	Notes Payable	15,000.00
Inventories	13,008.41	Due Endowment Fund-Advances	16,594.33
Furniture and Fixtures	3,814.24	Deferred Income	57,821.72
Other Assets	1,252.32	Surplus	196,469.13
Endowment Fund Assets	228,360.28		
Total	\$291,495.11	Total	\$291,495.11

INCOME AND EXPENSE ACCOUNT FOR THE YEAR ENDING DECEMBER 31, 1951

EXPENSES		INCOME	
General Administration	\$ 49,346.67	Membership Dues	\$122,702.67
American Forests Magazine	63,035.71	Advertising	26,814.86
Forester's Office	6,075.44	Sales of Publications	8,088.66
Membership	45,541.49	Endowment Fund Income	8,026.85
Total Expenses	169,399.31		
Excess of Income Over Expenses	1,633.73		
Total	\$165,633.04	Total	\$165,633.04

PROJECTS

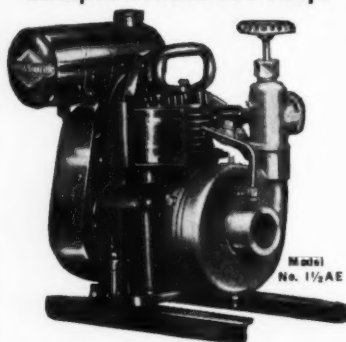
INCOME AND EXPENSE ACCOUNT FOR THE YEAR ENDING DECEMBER 31, 1951

Expenses	\$ 89,666.88	Income (Donations)	\$ 99,855.89
Excess of Income Over Expenses	10,189.01		
Total	\$ 99,855.89	Total	\$ 99,855.89

In our opinion the above condensed Balance Sheet and Income and Expense Account, fairly present, respectively, the financial condition of The American Forestry Association at December 31, 1951, and the results of its operations for the year ended on that date.

SNYDER FARR AND COMPANY,
Certified Public Accountants

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*By The Makers Of The Famous
Lowther C-Saw*

"I spent \$3 for paint." He says that's when they got an efficient girl for treasurer and created the supervisor of trails job for him.

As supervisor of trails Frank bribed trail clubbers to clear an uninteresting scrub oak section by combining business with a cabin party at Pine Grove Furnace in Pennsylvania. He offered beer, cider, doughnuts and a square dance on Saturday night—Dutch treat, he adds—and a scenic hike Sunday afternoon in exchange for four hours of hard work Sunday morning.

He got lots of takers, and the trip paid off so well he ran a second and a third. The trail was cleared, but they held one more party, just because it was so darned much fun.

The PATC is daddy of many clubs. It encouraged people in Baltimore and Hagerstown, Maryland, to form their own groups. It gave the Lynchburg and Roanoke, Virginia, hikers help in starting their clubs. Today it is keeping a protective wing over the Charlottesville, Virginia, group of hik-

TREAT WOOD RIGHT — Now available for showings to groups interested in curbing costly decay of the wood they use around farm or dwelling is this 20-minute technicolor how-to-do movie which had its premiere March 10 in Chicago. Write the Public Relations Department, Dow Chemical Company, Midland, Michigan.

ers aiming to form a club soon, with a section of trail to maintain near the Blue Ridge Parkway. These clubs never suffered quite the same growing pains as the PATC because they could benefit by the Washington club's experience.

Hiking clubs, outdoor clubs, Boy Scouts, the U. S. Forest Service, National Park Service, state forestry organizations and individuals have donated generously of time, money and labor in building and maintaining the trail. Their efforts have been rewarded. Last June trail crews on the George Washington National Forest in Virginia relocated the last nine and one-fourth miles of trail which had been destroyed with the building of the Blue Ridge Parkway.

Today Earl Shaffer could cover the mountains from Georgia to Maine on a through trail. Winding through dense woods, over windswept mountains, descending into wide river valleys, past lakes and streams, the trail beckons to all who love the outdoors.

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BY

A. KOROLEFF

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Here is a practical, simply written handbook for the profitable use of forest land. If you own, manage, or plan to acquire forest property you should have a copy of **MANAGING SMALL WOODLANDS** — the guidebook to woodland improvement and harvesting. Learn how to make your woodland pay cash dividends.

A. Koroleff, Director of Woodlands Research, Pulp and Paper Research Institute of Canada, and J. A. Fitzwater, formerly chief of the division of state forestry, U. S. Forest Service, have spent many years in woodland management work. They are recognized authorities in this field.

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THE AMERICAN FORESTRY ASSOCIATION

919 SEVENTEENTH STREET, N. W.
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Tree Friends

(From page 36)

the natives tried to build through it. Today a paved road circles it. I drive by often and as I watch a pheasant slip noiselessly into the dense cool foliage, I think of the horses and human beings which were mired in it long ago.

The sycamores on the hillside by our home frightened me. Their long white splotched arms seemed reaching out to grab me. The willows, of course, were continually weeping. There was, however, a low bushy kind on the edge of the swamp which gave us bright red whips in early spring. These we could gird round and round with knives, then pull off strips of bark making peppermint-candy-looking whips. Father could make wonderful whistles out of willow twigs. He could make them, too, from the slippery "ellum." While he whittled at these we stood by energetically chewing the bark.

Of course, there were other trees. We found big oaks and American elms everywhere. The sassafras in early spring gave us tea to "cleanse our blood." The honey locust behind its thorns gave us the blossoms which perfumed the countryside. Grandma must have one for her "dooryard." The nut trees — walnuts, butternut, hickory — gave us excuses for picnics at gathering time in October. The nuts themselves brought us a little money.

Today most of the individual trees I knew are gone. In their stead are cherry trees, peach trees, apple trees — acres of them. Beautiful they are, too, but not in the sturdy comfortable fashion the natives were. Even the friendly strays along the roadside are gone. New roads, you know, must be straight and wide and paved.

As the years passed I became acquainted with foreign trees. There was the day I beheld the Torrey pines hanging on for dear life to the rocks on the Pacific near San Diego. There was the afternoon I came all unexpectedly upon the avenue of deodars out Altadena way. I did not then even know what kind of trees they were. I only knew they were great shaggy giants leading me toward a new experience. The monkey tree, too, down in Alabama amazed me. It was different. I see it now hanging in the picture gallery of my mind. Its branches were just great snakes twisting and turning among each other.

Perhaps, though, the most unforgettable tree in my life was—a dead one. It lay there, just a stone trunk somewhere out of Rapid City, South Dakota. Our guide assured us it was a ginkgo and must be several million years old. Such trees were native today only in the Orient. Where did this one come from? Maybe it had floated across the Pacific at the time of the great flood. Maybe it had once grown right here and been buried by some cataclysmic upheaval. I thought of the petrified creatures I had seen in the museum in Pompeii. I have been thinking about it for 15 years. It is leading me on to the story of the earth.

Perhaps if I had been reared on the treeless plains, I should have found something as meaningful as the trees of my youth, but I doubt it. Certainly my interests today would have been different.

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Handy Pocket-Size Case 2 1/4" Dia.

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MUSSER FORESTS, INC., INDIANA, PA.

Your Woodlands

(From page 13)

advising him with regard to silvicultural operations in immature stands.

As this program has developed since the New York Forest Practice Act became a law early in 1946, we have found that the forest practice standards, which are necessarily of a general nature, are considerably less important than the individual diagnosis of the forester with respect to a particular forest area: Has the woodland been "high graded" till there's nothing much left but culls? Has it been grazed till it looks like a park? What does the owner want to do—cut sawtimber, or operate a sugar bush? If it's a pine lot, are there merchantable trees cankered by blister rust that need to be salvaged?

These are practical questions of forest husbandry that have to be dealt with right at the start, before getting into the more technical aspects of management, such as diameter-class representation, percent of volume to be removed, and growth-rate. In some of these "beaten up" woodlands, about all the forester can do is tell the owner to "get rid of the beech and keep the cows out for the next 50 years."

This is forest management in the rough, and bears little resemblance to the working plans for those beautiful "normal" forests, fully stocked with desirable species, with age class marching after age class, that the forester learned about in his undergraduate days.

Of course, not all the woodlands in New York are rundown, by any means. Some of them — on good sites, where the land has been in one family for two or three generations, with little or no history of grazing, and where cutting has been conservative — are among the best that can be found anywhere. Others, which were clearcut 75 years ago and left alone, have produced splendid even-aged stands containing a large proportion of light-demanding species such as white ash, black cherry and tuliptree.

As a matter of policy we have extended our technical services beyond the minimum required by the statute. We not only mark the trees, but furnish an estimate of the merchantable timber; we prepare a simple management plan and where there seems need for it, a sketch map showing the forest types and stand conditions.

(Turn to page 53)

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The Progress of Forestry

1945 to 1950

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The survey was made to determine the trends of events since World War II and to point out the strong and weak points in the whole forestry conservation movement. It was also designed to trace the developments in line with the 30-point Program for American Forestry previously adopted by vote of the membership.

The tremendous task of fact-gathering was carried out by a committee of government, state and private experts. It represents the work of scores of individuals, federal and state agencies and private organizations, all of whom contributed their time and services to bring under one cover, a documented record of forestry progress in one of the most critical periods in the forestry conservation movement in the United States.

Price \$3.00

THE AMERICAN FORESTRY ASSOCIATION

919 SEVENTEENTH STREET, N. W.
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Forum

(Continued from page 2)

most groups to expect them to willingly give up the advantages generously bestowed upon them by Congress. Regardless of the national forest interest, however, genuine miners cannot look with favor upon the passing of public land into ownership by non-miners. Since it is sympathy for real miners which prevents easy defeat of false claims, the help of the miners might be sought more often.

I recall an application for patent on the Boulder District of the Roosevelt National Forest a few years ago. Fortunately, local hard-rock men were willing to appear at a hearing and state that nowhere near \$500 worth of development work had been done and no showing of gold appeared "sufficient to justify a prudent man." The claimant's lawyer proved to be an exceptional individual, fair-minded and with a sense of humor. Surveying with a twinkle in his eye the three or four Forest Service uniforms present, he exclaimed, "With so many men in Lincoln green, I'm afraid we can't do much." He further stated he would not have taken the case had he realized all the circumstances and advised his client to withdraw.

This case is not cited to show that the present system is satisfactory. On the contrary, claims are so numerous such a procedure would take all the Forest officers' time on some districts. It is extremely unbusinesslike to subject national forest administration to this unnecessary burden. A system of leasing or special use permits would seem to take care of the needs of legitimate mining development.

Curiosity leads to the question why the miner was allowed to help himself to everything, including title to the land, in the first place, when similar privileges were denied the stockman and lumberman. An interesting answer is suggested by Walter P. Webb in *The Great Plains*. To the Easterners who predominated in Congress in 1872, mining was so new and strange that they were willing to take the word of presumed experts as to what was needed. But, having seen cows in pastures all their lives, they were not willing to let anyone convince them that conditions were different in the range country. But that is another whole chapter in the history of our public lands.

From James V. Bennett, director of the Bureau of Prisons for the United States Department of Justice comes this welcome letter:

Miss Dorothy L. Walker was kind enough to send me a copy of the March 1952 edition of *American Forests* containing her article, *A Straight Path Through the Forest*, which concerns our camp for juveniles at Natural Bridge, Virginia. I think so well of the article that we are placing our order for 1000 reprints for distribution to those who request information about the camp or about our procedures in handling juveniles.

In passing, I don't want to overlook the opportunity to congratulate you on the fine quality of your publication. I hope to see more of it from time to time. As you perhaps know, we operate a number of prison camps for adults, including one in the Monongahela National Forest in West Virginia, and another in the Coronado National Forest in Arizona. Also in recent years, we have undertaken extensive soil conser-

vation programs on all of our prison reservations. Several of those programs, particularly those at McNeil Island, Washington and Texarkana, Texas, involve improvement of timber stands and the development of good forestry practices.

* * *

Gary MacEoin, editor of *La Hacienda*, has written to ask permission to reprint in Spanish and Portuguese the article, *Mexico Unlocks its Timber Riches*, from our October 1951 issue. We had no reason to refuse, especially since he adds:

American Forests is carefully read by several of us here each month. We believe you are doing an excellent job in an important field.

The editors of *American Forests* may not yet be ready to contest Humphrey Bogart for the 1952 movie "Oscar," but at least Producer Cecil B. DeMille of Paramount Studios knows we exist. His secretary, Gladys Rosson, wrote recently:

In the March 1952 issue of your magazine there is an article by Henry F. Unger entitled *He Makes People Sit on Cactus* which describes the handicraft of Mr. Herb Wood. Mr. DeMille would appreciate it if you could give him the correct address of Mr. Wood.

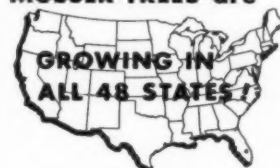
Could be he wants to have some cactus furniture made.

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This Month With the AFA

FROST LEAVES

(From page 34)

Mr. Frost leaves the Association with its affairs in good condition. One of his last official acts was to take out a \$100 life membership so that he might always keep informed of Association activities and feel that he is a contributing partner in the conservation causes which it has championed since 1875.

BOARD MEETING

(From page 34)

California, canvassed a cross section of the nation's forestry leaders before arriving at its conclusions.

In the field of legislation, the Board took this action:

Mining Laws — "We are of the opinion that present misuse of the mining laws is in many cases causing serious depredation of western federal timber lands, not in the public interest. We urge that Congress investigate this problem immediately so that it may be fairly analyzed and wisely corrected."

McKellar Bill — Opposition to S. 2537 and H.R. 2419, which would authorize 25 percent and 10 percent of national forest receipts for recreational and wildlife purposes on national forests, on the grounds that the precedent of allocating sales re-

ceipt money by federal bureaus was undesirable. Instead, the Board favored more direct Congressional appropriations or a system of fees for recreational and hunting use of national forests to be collected from those who use these privileges.

Alaska Homestead Bill — Opposition to S. 2413, which would offer homesteads to veterans on national forest timberlands in Alaska, as impractical and unwise public land policy.

O. & C. Situation — Opposition to S. 539, which would turn over 462,000 acres of national forest land in Oregon to the Department of Interior, as unjustified and a dangerous precedent. The Board urges Congress to provide some reasonable and uniform system of yearly payments to local governments in lieu of taxes upon all federal lands. Last fall the Association testified in favor of transferring all O. & C. lands to the Department of Agriculture for administration as national forests.

Insects and Diseases — In the matter of forest insects and disease controls, the Board urged more adequate research, a nationwide system of reporting pest attacks, more coordination of research activities, appointment by the Secretary of Agriculture of a National Forest Pest Advisory Committee, and the training of more forest insect and disease control specialists at forestry schools.

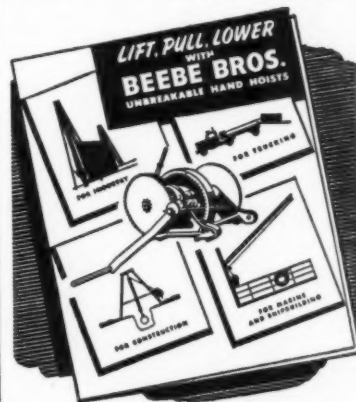
Trail Rider Folder

Dorothy Dixon, director of Trail Riders of the Wilderness, announces that the Association's folder describing the various Trail Rider expeditions is now available and has been mailed to the many persons who have made inquiries about these trips. If you haven't received the folder and would like detailed information on cost, locale and time of the Trail Rides, just drop her a line at AFA headquarters, 919 17th Street, N.W., Washington, D. C.

The director reports that this promises to be a banner year for wilderness travel and expeditions are filling rapidly. The pioneer trips into the High Uinta Wilderness of Utah and the Glacier Peak-Lake Chelan, North Cascade Wilderness of Washington are proving irresistible to many veteran Trail Riders and a steady stream of reservations is being received for all trips.



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OPENS JUNE 13

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There are many members and friends of the Association who find it impractical to contribute to its educational activities during their lifetime. Gifts in the form of a bequest are welcomed. Officers of the Association will gladly consult at any time with those who wish to know more about designating gifts for educational work in forest conservation.

Following is a paragraph suitable for incorporation in wills:

"I hereby give, devise and bequeath _____ to The American Forestry Association, Washington, D. C., a non-profit District of Columbia corporation, or its successor, or successors, for the purpose of promoting the corporate activities of said Association."

Your Woodlands

(From page 52)

There has to be a limit to this kind of service, and we have placed it for the time being at not more than three days of marking for any one cooperator during a year. For the larger owners, we can only make general recommendations along with the suggestion to employ a forester (if they haven't already done so), on a permanent or consulting basis. Relatively few of our cooperators own more than 200 acres of forest land.

How is the Forest Practice Act working out on the ground? We can't give a genuine appraisal of that until we have completed our "five year check" on the performance of cooperators whose management plans have run for the usual five-year period.

Of some things we are already certain: We have convinced large num-

NLMA 50TH ANNIVERSARY—A golden anniversary meeting marking the National Lumber Manufacturers Association's 50th year will be held May 8-10 in St. Louis, Missouri. NLMA's organization meeting was held in St. Louis in 1902.

bers of forest owners and many of the best operators, that cutting timber on a marked basis is good business—for the buyer as well as the seller. These same people have come to the realization that it doesn't pay to liquidate undersized growing stock, and the result is that we are accumulating a reservoir of such timber for future cutting.

Grazing is being eliminated. Owners are selling more of their timber with an eye to special markets, rather than "lump sum" to the first buyer that comes along. The Forest Practice Act deserves credit for making possible the widespread application of these principles.

But we should not forget the impetus given to woodland forestry since 1940 by the Norris-Doxey program of the U. S. Forest Service (now designated the Cooperative Woodland Management Program) which has been integrated with our Forest Practice Act on a re-imbursement basis, nor that we are building on the foundation laid by the extension foresters in their nearly 30 years of educating the woodland owner to think of this timber in terms of a crop.

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Don P. Johnston • President
W. J. Damtoft • Vice-President
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A. C. Spurr—West Virginia, President, Monongahela Power Company.
William P. Wharton—Massachusetts, President, National Parks Association.
Chester S. Wilson—Minnesota, Commissioner, Department of Conservation.

Washington Lookout

(Continued from page 4)

principle purpose of making a cutting schedule which will produce 25 million board feet of timber from public lands to meet the critical demand for timber at the present time."

The committee estimated the total receipts from revenue producing activities of the BLM for the fiscal year 1953 will be \$57,464,000. "Of this amount," continued the report, "\$23,707,100 will be returned to the states and counties under existing provisions of law. The remaining \$33,756,900 will be returned to the treasury. The direct costs of producing this amount of revenue are estimated to be \$12,667,600 for the fiscal year 1953."

* * *

O & C timber sales will provide most of these revenues, and under provision of the 1916 Act, the current return of 50 percent to the counties and state will shortly become 75 percent. As a result the committee reported as follows:

"An estimate of \$700,000 was included in the budget to finance the construction of access roads to stands of timber in the reverted Oregon and California grant lands. A similar request in 1952 was approved in the amount of \$700,000 after having been first denied by the House. The Committee has again deleted this item. The legislation relating to the distribution of receipts from the sale of timber made accessible by the proposed access roads has not been modified and it is still the Committee's opinion that the federal government should not invest in further capital improvements without deriving a larger share of the financial proceeds of harvesting the timber than is now provided for in the controlling legislation. The action taken by the Committee is without prejudice to the merits of the access road program."

Interior's bill was passed by the House on March 27, but that for Agriculture has been put over until Congress returns from the Easter recess on April 22. Meanwhile, appropriate subcommittees in the Senate have begun hearings on both bills so as to be able to push toward their enactment, possibly as early as May.

Li'l ol' Smokey Bear, whose droll figure has encouraged American business to support nationwide campaigns against forest fires with contributed advertising space worth more than \$5,000,000 a year is further along toward the desired protection against exploitation. On March 31, the House passed S. 2322, with amendments. When these are ironed out in conference, and approval given by the two houses, the completed bill is expected to receive the President's signature.



VACATION IN THE WEST

In Saddle or Canoe With the Trail Riders of the Wilderness

Flathead-Sun River Wilderness—Flathead, Lolo and Lewis and Clark National Forests, Montana. Two 12-day expeditions—July 5 to 16 and July 16 to 27. Cost, \$215 from Missoula.

Quetico-Superior Wilderness—Superior National Forest, Minnesota. Two 10-day expeditions by canoe—July 6 to 15 and July 19 to 28. Cost, \$175 from Ely.

Sawtooth Wilderness—Sawtooth and Boise National Forests, Idaho. Two 11-day expeditions—July 22 to August 1 and August 5 to 15. Cost, \$197 from Sun Valley.

High Uinta Wilderness—Ashley National Forest, Utah. One 10-day pioneer expedition—July 29 to August 7. Cost, \$215 from Vernal.

Maroon Bells-Snowmass Wilderness—White River and Gunnison National Forests, Colorado. Two 10-day expeditions—July 31 to August 9 and August 13 to 22. Cost, \$215 from Glenwood Springs.

San Juan Wilderness—San Juan National Forest, Colorado. One 10-day expedition—August 6 to 15. Cost, \$215 from Durango.

Glacier Peak-Lake Chelan Areas, North Cascade Wilderness—Chelan, Mt. Baker and Wenatchee National Forests, Washington. One 13-day expedition—August 11 to 23. Cost, \$215 from Wenatchee.

Cascade Crest-Goat Rocks Wilderness—Gifford Pinchot and Snoqualmie National Forests, Washington. One 13-day expedition—August 11 to 23. Cost, \$215 from Yakima.

Inyo-Kern Wilderness—Inyo and Sequoia National Forests, California. One 13-day expedition—August 26 to September 7. Cost, \$205 from Lone Pine.

Gila Wilderness—Gila National Forest, New Mexico. One 11-day expedition—September 3 to 13. Cost, \$215 from Silver City.

Write or wire for detailed information and reservations.

THE AMERICAN FORESTRY ASSOCIATION
919 Seventeenth Street, N. W. Washington 6, D. C.

Editorial

THE QUETICO-SUPERIOR COUNTRY

In four colorful pages of this issue, *American Forests* displays, in cooperation with the President's Quetico-Superior Committee, the beauty and significance of this continent's unique wilderness area which embraces some 15,000 square miles of entwined forests and glacially created lakes along the United States-Canadian border.

Now known as the Quetico-Superior Country, this region involving two public preserves was conceived in 1909 when Canada established a million acres of Ontario's timber and game lands as Quetico Provincial Park and President Theodore Roosevelt soon afterward created the Superior National Forest in Minnesota.

Thousands of new members have joined The American Forestry Association during the past year, and undoubtedly many of them are not aware that its leaders and this magazine which it publishes have been in the front line for nearly 30 years fighting the battles for the preservation of this wilderness. It is the purpose of these pages to further help point up the full import of this area.

As early as 1925, this Association helped prevent encroachment of power interests on lakes within the Rainy Lake watershed. Since then it has lent its support toward public acquisition of key tracts in the Superior roadless areas; sought to retain and preserve in the unspoiled reaches of the region

opportunities for primitive travel under wilderness conditions; assisted in making airplane trespass of the area a violation by virtue of an executive order creating what is known as an airspace reservation.

The Association is further on record as endorsing the establishment of an International Peace Memorial Forest to make the historic and beautiful canoe country which straddles the Minnesota-Ontario boundary a priceless heritage of which the United States and Canada will both be forever proud. Let us hope the consummation of this program and dedication of the area to these nations' war veterans will soon be realized.

It might be well to cite that part of the Quetico-Superior program which removes any qualification whatever from The American Forestry Association's stand of approval. That is its provision for multiple resource use and management of the area under the best silvicultural practices. While a portion of the region is set aside as inviolate wilderness, cutting of timber, under proper restrictions, is permitted in non-wilderness portions. In designated areas, roads, resorts and summer homes are permitted.

This together with preservation and management of wildlife, retention of timber along shore lines and protection against fire and disease make it an admirably balanced program.

REGULATION BY THE ENLIGHTENED

Whatever your convictions anent the principle of federal forest regulation, there's no gainsaying that Edward C. Crafts of the U. S. Forest Service has presented an adroit argument in its support (page 26). His deft manipulation of the words *public* and *federal* is artfully conceived, as is his careful setting of a stage on which any so bold as to disagree is promptly branded an emotional bigot.

Yet he does give prominent recognition to the crux of the entire issue when he says, "However it may be sugar-coated, regulation is an impairment of individual freedom." There, in a nutshell, is what it's all about.

If you are willing to entrust your hard earned forest lands to federal authorities in exchange for promises of national security, you in effect support federal forest regulation. If you believe in your own capabilities and in those more closely around you, and if you believe that destructive for-

estry practices on small holdings can be curbed through enlightenment of offenders, you favor regulation on a local and state level—from the ground up.

In arguing against federal regulation (page 27), H. H. Chapman, professor emeritus, Yale School of Forestry, states exceptionally well the case for state-level regulation as local conditions and forest practices require. His views are essentially those supported by The American Forestry Association in its "Program for American Forestry," adopted by vote of the membership following its 1946 Forest Resource Appraisal and American Forest Congress.

Certainly Mr. Chapman has cited substantial evidence of improving forestry practices through education and enactment of locally inspired state laws to refute charges that "the states themselves will not do the job." Let's not give up yet on self-regulation.

SELECTED BOOKS ON FORESTRY AND RELATED FIELDS OF CONSERVATION

TREES

A First Book of Tree Identification—Rogers	\$ 2.50
A Natural History of Trees of Eastern & Central North America—Peattie	5.00
Forest Trees of the Pacific Coast—Eliot	5.00
Handbook of the Trees of the Northern States and Canada—Hough	5.50
Maintenance of Shade and Ornamental Trees—Pirone	6.50
The Arboretums and Botanical Gardens of North America—Wyman	1.50
The Home Book of Trees and Shrubs—Levison	10.00
The Trees of Pennsylvania—Grimm	5.00
Trees of the Western Pacific—Kraemer	5.50
Trees for American Gardens—Wyman	7.50
Tree Trails and Hobbies—Cater	3.50
Trees Yearbook of Agriculture—1949—U.S.D.A.	2.25
What's That Tree—Appleton	.25

GENERAL FORESTRY

An Introduction to American Forestry—Allen	\$ 5.50
Bernard Eduard Fernow—A Story of North American Forestry—Rodgers, III	7.50
Forests and Men—Greeley	3.00
Indian Forest and Range—Kinney	4.50

FOREST MANAGEMENT

Aerial Photographs in Forestry—Spurr	\$ 6.00
Applied Silviculture in the U. S.—Westveld	6.00
Forest Management—Chapman	6.00
The Management of Farm Woodlands—Guise	6.00

MENSURATION AND VALUATION

Forest Mensuration—Bruce & Schumacher	\$ 6.00
Forest Valuation—Chapman & Meyer	6.50

WOOD—ITS MANUFACTURE AND USE

A Concise Encyclopedia of World Timbers—Titmuss	\$ 4.75
Air Seasoning and Kiln Drying of Wood—Henderson	5.75
Farm Wood Crops—Preston	4.25
Forest Products—Brown	5.00
Harvesting Timber Crops—Wackerman	6.00
Logging—Brown	5.00
Lumber—Brown	4.25
Textbook of Wood Technology—Brown, Panchin & Forsaith, Vol. I	7.50
The Coming Age of Wood—Glesinger	3.50
The Mechanical Properties of Wood—Wangaard	6.00

PLANTING OF TREES AND FORESTS

Farm Wood Crops—Preston	\$ 3.75
Plant Buyers Guide—Steffek	\$ 7.50
Principles of Nursery Management—Duruz	3.50
Tree Crops, A Permanent Agriculture—Smith	6.00
Woody-Plant Seed Manual—U. S. Forest Service	3.00

FOREST PESTS AND FOREST FIRES

Fire—Stewart	\$ 3.00
Forest Pathology—Boyce	7.50
Insect Enemies of Eastern Forests—Craighead	2.50
Our Enemy The Termite—Snyder	3.50
Principles of Forest Entomology—Graham	6.00

NATIONAL PARKS

Exploring Our National Parks and Monuments—Butcher (Paper \$2.50)	\$ 4.00
My Camera in the National Parks—Adams	10.00
My Camera in Yosemite Valley—Adams	10.00
Steve Mather of the National Parks—Shankland	4.00

CAMPING AND RECREATION

Field Book of Nature Activities—Hillecourt	\$ 3.95
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THE BOOKSHELF

How to Live in the Woods—Halsted	2.75
The Book of Nature Hobbies—Pettit	3.50

BIRDS, WILDLIFE, FISHING AND HUNTING

A Field Guide to the Birds—Peterson	\$ 3.50
An Introduction to Birds—Kieran	2.50
Audubon's Birds of America—Griseom	2.95
Birds of Prey of Northeastern North America—Hausman	3.75
Fishing Flies and Fly Tying—Blades	7.50
Fresh Water Fishing—Carhart	5.00
Game Management—Leopold	7.50
Mammals of North America—Cahalane	7.50
Northwest Angling—Bradner	5.00
Our Desert Neighbors—Jaeger	5.00
Raising Game Birds in Captivity—Greenberg	5.95
The Birds Are Yours—Lemmon & Eckelberry	2.25
The Elk of North America—Murie	6.50
The Fisherman's Encyclopedia—Gabrielson & Lamonte	12.50
The Land and Wildlife—Graham	4.00
The Saga of the Waterfowl—Bovey	5.00

FLOWERS, GARDENING AND LANDSCAPING

American Wild Flowers—Moldenke	\$ 6.95
American Wild Flowers—The Illustrated Encyclopedia of—Hausman	2.49
How to Landscape Your Grounds—Johnson	3.50
Shrubs and Vines for American Gardens—Wyman	7.50
Wild Flower Guide—Wherry	3.00

MISCELLANEOUS

American Resources—Whitaker & Ackerman	\$ 6.75
America's New Frontier—The Mountain West—Garnsey	3.50
Big Hugh—the Father of Soil Conservation—Brink	2.75
Big Jim Turner—Stevens	3.00
The Book of the States—Smothers & Cotterill	7.50
The Cascades—Mountains of the Pacific Northwest—Peattie	5.00
Conservation in the U. S.—Gustafson, et al	5.00
Conservation of Natural Resources—Smith	6.00
Elements of Soil Conservation—Bennett	3.20
Hunger Signs in Crops—A Symposium—Amer. Soc. Agronomy et al	4.50
Legends of Paul Bunyan—Felton	5.00
Modern Encyclopedic Dictionary of the Holy Bible—Jenkins	4.00
Of Men and Mountains—Douglas	4.00
Our Plundered Planet—Osborn	2.50
Our South—Its Resources and Their Use—Evans & Donahue	3.50
Out of the Earth—Bromfield	4.00
Pennsylvania's Susquehanna—Singmaster	6.00
Road to Survival—Vogt	4.00
Spray Chemicals and Application Equipment—McClintock & Fisher	6.00
The Lumberman's Handbook & Directory of the Western Forest Industries	12.00
The Lumberman's Handbook & Directory of the Southern Forest Industries	5.00
Time, Tide and Timber—Coman, Jr. & Gibbs	5.00
Water, Land and People—Frank & Netboy	4.00
Western Land and Water Use—Saunderson	3.75

THE AMERICAN FORESTRY ASSOCIATION

Knowing Your Trees—Collingwood & Brush	\$ 5.00
Teaching Conservation—Beard	1.50
Managing Small Woodlands—Koroleff & Fitzwater	1.00
Trees Every Boy and Girl Should Know	.50
Trees of the District of Columbia—Mattoon	.50
Progress of Forestry	3.00

Members ordering books through the Association are entitled to a 10% discount from published prices.



A TRUCK TRAIL ON ITS WAY TO A FIRE

This summer or fall, fire-fighting equipment may have to barrel over this truck trail to stop a costly forest conflagration. Every year vast areas of valuable timberlands are destroyed by fires.

So, J. W. Simons of Los Angeles County Fire Department is smoothing the way in Pine Canyon, California, with a "Caterpillar" No. 12 Motor Grader. Mr. Simons, who won the American Forest Fire Medal for Heroism in 1948, likes the way the No. 12 navigates the sharp curves and grades up to 26 per cent in these trails.

"The leaning wheels and loads of power allow me to blade right around the corners—making a smooth, even road where fire trucks need smooth roads," he reports.

"For our type of work, 'Caterpillar' Motor Graders definitely are an outstanding piece of equipment. They're always ready to go when 'go' sometimes means getting out of a mighty hot spot."

"Cat" Motor Graders are as economical as they are dependable. They can be used the year around in every climate and they're constructed for a long life of service. They'll serve you even longer if you give them a few minutes' preventive maintenance daily. In addition "Caterpillar" Dealers always are ready to give you fast, efficient service.

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